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ABSTRACT

The intent of this study was to discover if education is experiencing the problems medicine has encountered as a specialized profession. An analysis of supply and demand studies shows continuing high demand for and moderate shortages of educational specialists. Both generalists and specialists are concerned about defining and delimiting roles and responsibilities. Evidence of negative effects of specialization is scant, but certain problems appear to be common--"dumping" of problem students, over-referral, and lack of parent involvement. Exploratory studies of generalist-specialist interaction were carried out with 66 teachers and 22 physicians. Interviews focused on referral practices and problems; teachers agree less about grounds for referral and have more problems than physicians following up on referrals. Teachers lack a responsive system for handling feedback and also sense more client difficulties during referrals. Recommendations include: improving communication among educational generalists and specialists; reducing "dumping"; making record keeping systems more responsive; and increasing public involvement in planning for specialist services. (Author/JD)

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Specialization among Educators:
Efficiency, Power, and the Medical Analogy

FINAL REPORT

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Tacoma, Washington

December, 1979

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Summary

Increasingly, teachers are specialists; the intent of this study was to discover if education is experiencing the problems medicine has encountered as a specialized profession. An analysis of supply and demand studies shows continuing high demand for and moderate shortages of educational specialists. Reviews of literature on generalist-specialist interaction indicate both generalists and specialists concerned to define and delimit roles and responsibilities; evidence of negative effects of specialization is scant, but certain problems appear to be common--"dumping" of problem students, over-referral, and lack of parent involvement. Districts have tried various approaches to deal with these problems. Exploratory studies of generalist-specialist interaction were carried out with 66 teachers and 22 physicians. Interviews focused on referral practices and problems; teachers agree less about grounds for referral and have more problems than physicians following up on referrals. Teachers lack a responsive system for handling feedback. Teachers also sense more client difficulties during referrals. Recommendations include: improving communication among educational generalists and specialists; reducing "dumping"; making record keeping systems more responsive; and increasing public involvement in planning for specialist services.

Utilization of the Research

This research will serve as the basis for a special workshop on generalist-specialist interaction to be offered during the summer of 1980 at the University of Puget Sound. The workshop, entitled "Teachers Working with Teachers," will focus on the issues dealt with in this study and will provide opportunities for increasing communication among generalists and specialists. Further such offerings are being planned for further in the future. Results of this research will be incorporated into the regular undergraduate pre-service teacher education program at the University of Puget Sound through the principal investigator's participation in the institution's Special Seminar for student teachers. A variety of local and state presentations of the findings are also in the offing, including one to the Educational Staff Associates [Specialist] Committee of the Washington Education Association.

Publications

Teacher specialization: Efficiency or power? Paper presented at the annual meeting of the American Educational Research Association, San Francisco, California, April, 1979. ERIC ED No. 169 043.

Public participation and professional conflict in defining specialist services. Chapter in Samuel B. Bacharach (Ed.), Politics and administration: Organizational analysis of schools and school districts. To be published by Cornell University Press, fall, 1980.

Forms clearance and the future of educational research. UPS Edletter, 1979, 4(2), 2.

Other publications (articles and/or a book) are also planned. There is the possibility of an article to be authored jointly with medical staff from the health maintenance organization studied for this project.

Collaborators

Three persons in addition to the principal investigator collaborated on this project:

Kevin J. Brewer, Graduate Student (Research Assistant)
Howard B. Moetteler, Undergraduate Student (Research Assistant)
Linda Ohlsson, Graduate Student (Research Assistant)

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I. Introduction: On Specialism

Why do specialties develop within professions? And, once developed, what effects do they have on the quality of service that the profession provides? While sociologists have studied professions for decades, they have given relatively little attention to the role of specialties within professions. Specialization, however, is growing in many occupations and professions, and a number of critics have pointed to potentially negative consequences: declines in the overall quality of service due to fragmentation in the way service is offered; increased alienation of the consumer from the professional; and increased power, autonomy, and status for the specialty group.

The intent here is to outline briefly the development of major theoretical perspectives on the professions and the role of specialties within them. It will also be important to examine the way in which specialties have developed within medicine and education, and to consider what the prospects are for the specialists in the latter field.

Traits of a Profession

For many years, sociologists interested in the professions seemed content to focus on a single question: what things distinguish a profession from other occupations that are not professions? In most cases, the argument proceeded thus: certain occupations (notably medicine and law, though sometimes also including university teaching, the ministry or priesthood, architecture, dentistry, engineering, etc.) are recognized by scholars or by the general public as professions; these occupations exhibit certain common traits (autonomy, commitment to public service, a base in a body of abstract knowledge, involvement in "life or death" matters, and so on); therefore, to the extent that any occupation aspiring to professional status shares these key traits, it may be called a profession.

Among sociologists, key proponents of this "traits" model of a profession have included Parsons (1939), Goode (1957), and Greenwood (1957). Etzioni (1969) later accepted this approach in his influential work on the semi-professions of teaching, nursing, and social work. In an essay appearing in the same volume, Goode (1969) reiterated the position and identified what he termed the two "generating" traits of a profession: abstract knowledge, and an ideal of service. Burton Bledstein (1976) traced these aspects of professionalism back to a mid-Victorian image of "the independent democrat, a liberated person seeking to free the power of nature within every worldly sphere, a self-governing individual exercising his trained judgment in an open society" (p. 87).

Studies of the professional status of teaching have frequently borrowed from the treatment of Etzioni and Goode (e.g., AACTE, 1976; Howsam et al., 1976). Others, such as Cox and Elmore (1976) and Ornstein (1977), have taken issue with specifics of the definition or the way in which it is applied, but have accepted the underlying premise that medicine and certain other occupational groups are the professions, while teaching is a semi- or sub-profession.

Problems with the traits model. The traits commonly associated with professional status obviously appeal to those concerned about the future of teaching--and this appeal is not difficult to understand. Certainly one would find it difficult to argue with the need to develop more rigorous theoretical and empirical bases for teaching actions, or with the desirability of improving the quality of professional preparation in the field.

Difficulties arise, however, when one profession (almost always medicine) is accepted as the paradigmatic case, and all other occupational groups are measured against it. The problems which this acceptance creates are various. For one thing, the social and economic conditions under which one group strives to achieve professional status are not likely to be duplicated exactly for a second group undertaking that task at a different time. Perhaps more importantly, the traits model implicitly supports the status quo. If a profession must always conform to a set pattern, then existing professions are provided with a mantle of legitimacy, and aspiring occupational groups are held to a single acceptable model. Also eliminated from consideration are the possibilities that established professions may themselves be changing (perhaps in ways that will change which traits "generate" a profession), or that some of the traits listed may not be especially valuable for society as a whole.

Power, Control, and Professionalization

Sociologists in recent years have been increasingly critical of the usefulness of the traits model. Roth (1974) noted that, by limiting the discussion to traits, only a "yes or no" decision can be made about the professional status of any group. He proposed that a study of the processes by which an occupation attains and maintains its position as a profession would provide more useful information about the differences among occupational groups than the "score card" approach which the trait model encourages. Freidson (1970, 1971) approached medicine in this way and observed features of that professional culture rather dramatically different from those which had previously been stressed through application of the traits model. The developing interest has therefore been in professionalization (the processes by which an occupation attains and maintains its professional status), as opposed to professionalism (the description of existing professional groups in place).

Terence Johnson's (1972) analysis also urges a dynamic model of professions and professionalization. In particular, Johnson's taxonomy of professional occupational groups is based not on a collection of traits but rather on the ways in which those groups seek, gain, and lose control over the market for their services. Social distance between producer and consumer, Johnson notes, is generated any time the producer of goods and services becomes so specialized that the consumer (or client) cannot produce those goods or services himself. This distance creates uncertainty on the part of both producer and client about the relationship, an uncertainty that must be reduced if the relationship is to continue. "Power relationships," Johnson notes, "will determine whether uncertainty is reduced at the expense of producer or consumer" (p. 41). If uncertainty is reduced at the client's expense, then the producer emerges as the dominant party in the relationship and sets conditions under which services will be provided; the producer's knowledge remains recondite and inaccessible to the client. If, on the other hand, uncertainty is reduced at the producer's expense, then the client is in a better position to set the conditions under which services will be obtained; in this case, the knowledge base of the producer has become more readily accessible to the client.

Specialization therefore emerges as a key part of the process of professionalization. By specializing its knowledge base, and therefore "mystifying" its activities, an occupational group may be able to maintain or even increase its distance from its clients, and thereby increase control over its clients and its work.

Just as medicine has served as the touchstone for a taxonomic definition of profession, so it has also been a primary object of analysis by those who would approach professionalization through power and control.

In addition to Johnson, Freidson (1971, 1977), Starr (1978), and Turner and Hodge (1970) have all dealt with how medicine has consolidated its own occupational position and prestige. Sociologists have paid attention to the way in which physicians have used specialization to guarantee or limit access to particular clienteles (e.g., Bucher & Strauss, 1961).

The Nature of Specialism

Since the focus of this report is on specialization in education, it may be worthwhile to pause at this point to consider at greater length the sociologists' perspectives on specialization in the professions.

It is interesting to note at the outset how little has actually been written on the topic of professional specialism. The division of labor in society, of course, has long been a topic of interest to sociologists--Durkheim (1933) and Weber (1978) both dealt extensively with the topic, but both were primarily interested in the nature of work in large industrial or bureaucratic organizations rather than in the professions. Later analysts (Friedmann, 1961; Tyler, 1973) have also focused largely on indistrial work.

But some studies have examined the development of professional specialties. Freidson (1976) noted the need for studies of the division of labor based on social interaction. And Bucher and Strauss (1961) analyzed professional specialization among physicians in particular. They discussed seven value areas around which intraprofessional groups might differ: sense of "mission" (the uniqueness of a particular occupational group's role); work activities (what is central in the practice of the profession for that group); methodology (how the profession is to be practiced); clients (who are they and how should relations with them be structured); colleagues (which practitioners from outside the group are seen as closely related to the group); conflicts of interest (over the image of a field and initiation into it); and "public relations" (the field as publicly proclaimed through codes of ethics, establishment of separate assocations or boards, and so on). Conflicts in any of these areas may lead to the fragmentation of a profession into specialty areas.

Rueschemeyer (1977) took another approach to differentiation. While his analysis is not limited solely to professions, many of his points are relevant. Rueschemeyer is most critical of the argument that efficiency is the primary reason for differentiation in occupations:

> whether or not efficiency advantages have a central place in the explanatory model, the differential power resources and the power interests of the various relevant individuals and groups are likely to be of strategic importance for the immediate causal constellations underlying actual processes of differentiation (p. 22).

Power is thus a critical variable in the process of occupational differentiation. Rueschemeyer's analysis, however, deals primarily with the question of incentives for and against differentiation when one or more centers of power and authority are involved. When there is more than one center of power, the way in which the occupation becomes differentiated will be affected by: access of different groups to their markets; the position of the government; and the position of other agencies having some jurisdiction (p. 18). The forces actually encouraging greater differentiation, however, are underlying social forces such as population change, technical and economic developments, and value changes in "sociocultural life." These in turn act to modify the power position of the various groups involved and thus encourage or discourage specialization.

Loveridge (1972), another analyst of professional specialization, discussed the use by occupations of certification or licensure as a tool for improving professional prestige:

> The decision to award a qualification [certificate] is now only rarely an affirmation of already-acquired recognition and prestige within the company or within wider society. Rather it is a bid to claim a new status both in the work role and in market terms. (p. 363)

With these few exceptions, most of those working on the nature of professional specialization have taken a distinctly different tack and have concentrated on debunking the value of specialization. Illich (1977) has been most vehement in his comments, though he was foreshadowed in Liebermann's earlier (1970) work:

> The rush to professionalism is identical with the increase in specialization: Each is an indespensible aspect of the other. The specialist could not operate without a complex industrial system to buttress his claims and a professional ethos to attest to his specialty; the professional could not provide the ethos were it not for the claim that he does something invaluable that no one else can. (pp. 140-141)

There will be occasion later to return to these critics of professional specialization.

Professional Specialization and the Problem of Bureaucratic Organization

Among those studying specialization, a question that has aroused much debate is to what extent professions are becoming bureaucratic in their structure and organization. Some maintain that such a change is underway, while others deny it. Still others claim that fundamental changes in the organization of professional work are indeed taking place, and that these will lead to dramatically new future identities for the professions. Since this debate has attracted considerable attention in recent years, it may pay to survey briefly here some of the most important issues involved.

The case for more bureaucratically and administratively controlled professions runs as follows: the nineteenth-century conception of a profession depended heavily on the individual autonomy of the professional (e.g., the physician or lawyer in solo, fee-for-service practice); as the division of professional labor into specialties increased, so did mutual dependence among individual practitioners; in the twentieth century, increased government intervention through quasi-public licensure and certification bodies further diminished the absolute control of the professional; a general rise in the level of education of the population made clients more demanding and less willing to accept the profession's own definition of its autonomous status; finally, professionals of all sorts are increasingly employed not in private practice but in large, bureaucratic organizations in which they may be supervised not by their professional peers but rather by career bureaucrats (Haug, 1973, 1975; Oppenheimer, 1973; Ritzer, 1975).

On the other side of this issue, there are analysts who claim that the professions, in spite of general social trends toward more bureaucratization of work, will manage to retain their unique positions vis à vis other occupations, and that specialties will continue to be defined as semi-autonomous groups within those professions. The argument here runs roughly thus: whether one chooses to define professions via a taxonomy of traits or by referring to the power a professional group wields, there are certain objective indicators showing that an increasing number of aspiring professions or specialties have "made it" and been accepted by the society at large (these indicators include such things as state-recognized training programs, state licensure, local and national associations, and so on); these trappings of professional life tend to set the professions apart, give them a cachet of social value and prestige, and aid in developing a professional "ideology" that insulates the profession from the public; though professionals are increasingly employed in bureaucratic organizations, their professionalism is not necessarily thereby erased--indeed, this pattern may serve to change the employing organization in ways that make it less bureaucratic; in a society that relies ever more on the use of knowledge and expertise, then, the non-rationalized, non-bureaucratized professional may well represent the model future worker (Crozier, 1974; Dibble, 1962; Engel & Hall, 1973; Freidson, 1973, 1977; Hall, 1968).

A third view of what is currently happening to professions and specialty groups is synthetic. It proposes that professions and specialties, while continuing to be important and relatively independent occupational groups, will also change in critical ways and thus move away from the traditional view of what a profession is. Gilb (1966) and May (1976) both focused on the clash between growing client demands for participation in making decisions about the administration and delivery of professional services on the one hand and the tendency of professional groups to insulate themselves against such demands on the other. They saw as critical the development of a variety of new decision making forums to deal with these issues.

Yarmolinsky (1978) saw the professions themselves responding to public demands for participation, the proliferation of specialties, and the growth of bureaucracy by taking action in five areas: selection of pre-service professionals (to achieve a more equitable distribution by race and a more socially responsive distribution by specialty); delivery of services (to insure wider public knowledge and lay involvement); allocation of resources (to counter public demands for cost control); governance (involvement of public members on advisory boards); and changes in the content of service (allowing more client contributions to its definition). Yarmolinsky, like Gilb and May, also saw the conflict between bureaucratization and professional specialization as a critical test for the professions. He saw an increased focus on the "human qualities" of the professional as the only possible solution. But while Gilb, May, and Yarmolinsky issue calls for the professions to change in how they are organized to meet client needs, none offers a very satisfying explanation for why that professional-bureaucratic distinction is so prevalent and so bothersome in the first place.

Terence Johnson's treatment of this problem, however, seems conceptually more adequate and also more provocative for the particular focus of this study--the status of teacher-specialists. It may help to review first the three types of occupational control and resulting power relations proposed by Johnson (1972).

First, under collegiate control, the producer of services (or professional) defines both the needs of the consumer and how the producer will cater to those needs. This is the traditional model of professionalism (law and medicine are examples) in which power is heavily concentrated in the hands of the producer. Under a second model--consumer or "patronage" control--the consumer defines needs and how they will be met. White collar professionals employed by corporations to do tasks defined by management (e.g., accountants) are in this category. Finally, under mediative control (or state control), an intervening third party, often the state, defines both what client needs are and how the professional will meet those needs. Welfare workers and teachers, Johnson notes, work under this sort of arrangement.

In a situation of mediative control, power is more diffuse than under traditional professional collegiate control. The state becomes important by guaranteeing clients to the professionals; it also serves to lessen the direct impact of consumer power on the professional. (Compare, for example, the power a consumer has to simply stop seeing a particular lawyer and switch to another with the difficulty he would encounter in most school districts in trying to shift his child from one school or class to another.)

In a later piece, Johnson (1977) argued that his typology offered the key to the debate over professionalization or bureaucratization as the most likely occupational future for white collar workers. He proposed that any occupation may be characterized by an "indetermination-technicality ratio"--indetermination being the occupation's ideology or mystique (its ability to keep clients in a state of uncertainty about their needs and the professional's services) and technicality being the susceptibility of the occupation to systematic codification and routinization (and thus the possibility of its being brought under outside bureaucratic control).

Johnson asserts that his typology of three sorts of occupational control (coupled with a neo-Marxist interpretation of the place of bureaucratized labor in post-industrial society) shows that professionals who are organized in collegiate fashion (e.g, physicians) will continue to have easier access to indetermination, and thus will be able to resist bureaucratizing pressures; professionals working under mediative state control, however, will not be permitted (by the state, presumably) to make use of indetermination, and so will be more readily fragmented and bureaucratized for the state's own ends.

Specialization and the Power of the Medical Analogy

Since the past and present status of medical and educational specialization are of critical importance for the further development of arguments in this paper, it is appropriate to consider briefly how specialism has developed and what its current status is in each field.

The development of medical specialism. Fifty years ago, the average U.S. physician was a general practitioner. In 1931, only about 17% of all doctors identified themselves as full-time specialists. By 1969, however, fully 77% of physicians considered themselves specialists (Stevens, 1971, p. 181). In a recent survey, only about 14% of medical graduates of 1960 reported themselves as general practitioners (Schwartz & Cantwell, 1976). What is particularly interesting about this change is not so much the bald fact of it as the set of conditions under which it occured.

During the first thirty years of this century, professional medical societies and associations were particularly concerned about both an oversupply of physicians and the low standards of professional preparation in many training institutions. Stevens notes that, in 1910, "many small towns of 200 or less had 2 or 3 doctors" (p. 61; see also Pusey [1925a, 1925b] and Simmons [1904] for other comments on medical "oversupply"). The public image and economic position of physicians were seen to be in jeopardy. While a range of new technical developments did allow new specialties to arise (asepsis and antisepsis in surgery, new instrumentation in otolaryngology, etc.), it was under conditions of real or perceived economic hardship for the profession that they flourished.

In Johnson's terms, then, physicians responded to a situation in which uncertainty in their relationships with their clients was being reduced in favor of the client by increasing their distance from the clients and by mystifying their roles, that is, by specializing. And while it is doubtful that individual physicians would have described their action as a conscious decision in this direction, the net result was the same: a system of medical service in which the specialist-physician prescribes not only medication, but also the form and content of health care in general.

The power of the medical analogy. The added social prestige conferred by specialization has not been lost on other existing professions and other occupational groups aspiring to professional status. Lawyers, for example, have not traditionally been organized into specialties. Recent trends, however, demonstrate that lawyers are not only considering certification by specialty (Morris, 1978), but also share a common perception of what the most prestigious specialty areas (albeit not officially recognized) in the field are (Laumann & Heinz, 1977). Librarians increasingly view each other as professionals specialized by area of expertise, function, or work setting (Shosid, 1974).

Teaching as an occupation has been particularly susceptible to the siren song of specialization and professionalization as exemplified in medicine. Concern for the professional status of public school teachers has been evident for a number of years. Etzioni (1969) included teachers, together with nurses and social workers, in the ranks of the "semi-professionals." Goode (1961, 1969) predicted that neither teachers nor librarians would become professionals in the near future. Dreeben (1973) and Miles (1967) noted a variety of problems which prevent teaching from achieving professional status. Lortie (1975) commented on the lack of a professional orientation among teachers and suggested changes in the practice of teaching to ameliorate the situation. The theme of the 1976 annual meeting of the American Association of Colleges of Teacher Education was "A Profession--Now or Never!" (AACTE, 1976). Discussion at that meeting revolved around a report, Educating a Profession, prepared by a special commission of the association (Howsam, Corrigan, Denemark, & Nash, 1976). As noted above, some have taken issue with the use of the "traits" model of professionalism in defining teaching, but most have accepted the image of medicine as the archetype of professionalism.

If teachers have sought consciously to foster those traits of the medical profession they saw as leading to improved prestige, then perhaps they have also attempted to guarantee their own professional positions in a manner similar to that used by physicians--by specializing. The issue of teacher control over clients through specialized practice is the central topic of much of the rest of this paper.

Teacher Specialization--Present and Future

What is a specialist in education? One of the major problems encountered during this project was that there exists no single comprehensive definition of what a specialist is. In this paper, then, it will be convenient to describe as a specialist any educator whose work in the school system is not primarily to communicate a specific body of knowledge but rather to deal with particular student problems or conditions that impede learning, to aid students in non-curricular applied areas, and to encourage interaction among students, parents, other teachers, and school administrators. Using this definition, the following types of educational specialists may be distinguished:

Special education teachers. This is probably the largest and most diverse group of specialists. Four major categories should be noted:

teachers of the mentally retarded (sometimes further subdivided; e.g., "mildly," "moderately," and "severely" retarded); teachers of the learning disabled (dealing with students having such conditions as dyslexia and discalculia); teachers of the physically handicapped (working with the blind or visually impaired, with the deaf or hearing impaired, with the orthopedically handicapped, and with those suffering from other health handicapping conditions); and teachers of the emotionally or behaviorally distrubed. In addition, some teachers in special education work with multiply handicapped children.

Teachers of the disadvantaged. Students who have severe problems with reading and/or mathematics may work with a reading or math specialist. Bilingual teachers work with children who are at a disadvantage in a traditional classroom because their native language is not English.

School support teachers. A variety of counselors in schools provide information and support to students (subspecialties are vocational or career counseling and personal or guidance counseling. Some counselors also do organizational development work or human relations training with teachers and administrators. Counselors working at the elementary level sometimes maintain that elementary counseling is sufficiently different from secondary counseling that it should be considered a separate subspecialty). School psychologists deal primarily with measurement and evaluation. Social workers are concerned largely with liaison among students, parents, teachers, school administrators, and outside groups such as law enforcement agencies. All these specialists work closely with special education teachers and with teachers of the disadvantaged.

Other types of school support teachers include librarians (who may specialize in turn in "pure" librarianship, in media or audiovisual production, or in "instructional development"; in the latter case, the librarian may wind up working extensively with other teachers on course design, materials selection, etc.) Curriculum specialists usually work out of a central district office and provide direct assistance to teachers on curriculum change, development of strategies, etc. School nurses treat medical problems but also deal with emotional difficulties of students. Many states require school nurses to have a teaching certificate and experience in addition to medical qualifications.

In some parts of the country, early childhood specialists are also recognized as a separate group. Some of these may simply work as kindergarten or day-care teachers, while others work in a consultant capacity to other teachers, schools, or districts. Teachers of the gifted, while not yet widely recognized through separate certification, may be the next large group to achieve specialist status.

Paraprofessionals. Though not strictly speaking "teachers," paraprofessional aides are in a sense specialists in education. Because their use has occasionally been criticized by teacher organizations, especially in situations where differentiated staffing has been tried, they represent a particularly problematic type of specialization--the designation of a class of sub-professionals who must be supervised by a regular classroom teacher.

The major category of educational "specialist" eliminated by the list proposed above is that of subject-matter teacher at the secondary level. While specialized in the sense that he or she teaches in only one field, the subject distinctions are of such long standing and are so generally accepted that it seems pointless to consider them here.

Note that many of the areas of responsibility in the list above overlap. Reading specialists and teachers of the learning disabled, for example, may deal with what are basically the same student problems. Counselors and psychologists have occasionally disagreed over where one group's responsibilities end and the other's begin. And curriculum decisions are sometimes a bone of contention among classroom teachers, librarians, and curriculum specialists. Further evidence of conflict among various specialist groups will be discussed below and in Section III.

Finally, specialization is a continuing process and new specialties in addition to those discussed above are constantly being proposed. Numerous ideas for new specialties have surfaced over the past few years; let the titles suggest the roles: "subject master" (Bartlett, 1977); "educational information consultant" (Banathy, 1972); "learning coordinator" (Christenson & Johnson, 1977); "educational resource technician" (Hilyer, 1972); "research associates, learning diagnosticians, visual literacy specialists,... systems analysis and evaluation specialists, ... and a variety of community education specialists and learning process facilitators" (Corrigan, 1974).

Problems Accompanying Specialization

In recent years, critics of specialism have argued that the rationale of efficiency commonly advanced in support of professional differentiation may be flawed. Problems that develop when services are provided through specialists, they have claimed, may outweigh the advantages that specialized practice confers. Since this argument developed first with respect to medicine, and since that argument is critical to the further development of this paper, it is worthwhile to outline here some of the criticisms that have been leveled against medical specialism in particular.

Problems of medical specialism. In recent years, medicine has increasingly come under attack because specialized services that seemed efficient to physicians did not meet public expectations for health care. Criticism of medical specialism has ranged from proposals for reform from within (e.g., McKeown, 1976; Mechanic, 1976) to demands for radical restructuring of the entire health care system (Carlson, 1975; Illich, 1975). Ivan Illich has been most bitter in his critiques of specialism, noting that

> the bodies of specialists that now dominate the creation, adjudication, and satisfaction of needs are a new kind of cartel. (1977, p. 23.)

In particular, the critics have focused on four problems of medical specialism: (1) reductionism in diagnosis and health care sometimes means that the patient is treated as a "bag of symptoms" to be dealt with, rather than as a whole person whose problems may not be easily attributable to a single identifiable cause; (2) specialists' certification, licensure, and professional autonomy, based on claims of arcane particular competence, may intimidate laypersons and keep them from seeking the information they need to make informed choices about their own care; (3) at the same time, public confidence in the abilities of specialists to apply a "cure for anything" may lead to unreasonable demands for specialized services, and governmental response to such demands may lead to further bureaucratization and fragmentation in the quality of service offered (see especially Gilb, 1966, and Ritzer, 1975); (4) finally, maldistribution of personnel may result from the need for specialists to have a large population base and a constant stream of referrals from other practitioners (e.g., Stevens, 1971).

Another problem medicine has experienced in specializing--referral--has affected not so much consumers of medical care but physicians themselves. As all forms of practice become more interdependent, the process by which physicians direct patients from generalist to specialist and back again becomes critical. Referrals come to define a physician's economic position (through their quantity), but they also play an increasingly important role in defining doctors' "dignity and career success--their very identities as physicians" (Freidson, 1975, p. 85). Changes in number and distribution of specialists have thus brought with them conflicts about referrals (see also Hirsh, 1977; Shortell & Anderson, 1971).

As presented here, most of these claims about declines in the quality of medical service due to specialization are grounded on scant evidence. One of the tasks of this paper (in Section IV, "Specialization: Effects on Quality") will be to assess the empirical evidence for such claims.

Plan of the Report Recapitulated

In addition to this introduction, this report includes five sections. These correspond to major objectives of the study. Section II, "The Supply of and Demand for Educational Specialists," reviews data on teacher supply and demand in the specialty areas. Several national and state studies provide the raw material. In addition, there are comments on a number of problems encountered in analyzing these data.

Section III, "Generalist and Specialist Teachers: Power and Process," focuses on power relations and the possibilities for conflict among generalist and specialist teachers. Anecdotal reports and position papers reveal some present and potential areas of difficulty. And data from a series of interviews conducted with teachers, specialists, and school administrators provide useful insights into sources of agreement and tension in the day-to-day referral of students from generalists to specialists and back.

In Section IV, "Specialization: Effects on Quality," the evidence of medical specialism's negative impact is first reviewed, and a similar review is carried out for educational specialism. Then, two questions are addressed that have to do with improving generalist and specialist interaction in the schools: first, how have administrators organized school systems so as to encourage positive interaction among specialists and generalists? And second, how do specialists, generalists, and parents work together to achieve positive results? Evidence in this section comes from surveys of the literature in these various fields.

Section V, "Medical Responses to Specialization," addresses ways in which the medical profession has recognized and dealt with the issue of generalist-specialist interaction. In addition to a survey of the literature in such areas as training, administrative organization, legal procedures, and citizen participation, results are presented from a series of interviews with generalist and specialist physicians employed in a large pre-paid health care system. Interview schedules paralleled those used with teachers for the interviews discussed in Section III.

Finally, Section VI discusses results of the study under the title "Specialization and Bureaucracy in Personal Service Professions." Major findings are summarized from each of the preceding sections, differences and similarities between medicine and education are recapitulated, and major trends affecting the future of educational specialization are identified. Finally, a scenario for the future provides the basis for a set of recommendations for action and future research.

II. The Supply of and Demand for Educational Specialists

Over the past decade, education has become more specialized. More and more educators are certified in and work in areas that are defined not by their subject or disciplinary content, but by the specific approach to instruction or teaching methodology the teacher is to use, or by the type of help that teacher is to render to children. And, in a time when there is a surplus of most generalist teachers, specialists in a variety of fields are much sought after. Administrators at different levels predict continuing shortages of qualified staff in these specialties. At the same time, it is unclear just what has generated this present and predicted future demand. What, for example, are the effects of state and federal legislation mandating programs that employ specialists? What effect does funding for training of specialists have on supply and demand? Do state certification requirements and differences in pay scales at the district level provide some of the impetus, and if so, how much?

For the sake of clarity, it may be convenient to examine these questions under three broad headings: (1) the supply and employment of specialists; (2) the demand and perceived need for specialists; and (3) the effects of legislation and regulation on supply and demand. It will also be appropriate to consider a number of problems encountered in analyzing data on specialist supply and demand. The problems further suggest a number of possible studies on the question of supply and demand.

The Supply and Employment of Specialists

A number of methodological problems arise when one attempts to calculate the actual supply of teachers available in any field. All those teachers newly certified in any given year do not necessarily seek employment, while some would-be teachers with certificates may still be seeking employment several years after graduation. Many recipients of masters degrees in education are already teachers, yet they are frequently included in the count of "new" teachers. (See Carroll & Ryder, 1974, for a discussion of related problems in estimating supply.)

National studies. Several important national studies of educational personnel indicate changes in the numbers of specialist as opposed to generalist educators. The National Survey of the Pre-service Preparation of Teachers (NSPPT; see NCES, 1978; Morra, 1977) questioned, among others, 3600 students in their final year of pre-service training. Items ranged over career expectations, aspirations, and their perceptions of the job market. This study outlined a number of changes: while only about 9% of teachers in 1972-73 indicated an intent to specialize, the figure had risen to about 21% by 1975-76 (Morra, 1977, p. 100). It should be noted that the increase was due not so much to the small rise in the absolute number of those specializing, but to the much larger decline in the number of those intending to become generalists. This change pushed up the relative weight of specialists among all educators.[1]

Data collected at five-year intervals by the National Education Association provide further evidence of the trend toward specialization. At the secondary level, special education teachers made up only 3/10 of 1% of all teachers in 1961 and 4/10 of 1% in 1966. By 1971, the figure was 1.1% and it had risen to 3% by 1976 (NEA, 1977, pp. 6, 21). Elementary teachers working in a departmentalized setting (as opposed to self-contained classrooms) increased from 5% of all teachers in 1961 to 20% in 1976. Specialists in math, language arts, and special education made up almost 1/3 of those departmentalized teachers in 1976 (p. 21). Finally, ratios of "other educational personnel" to classroom generalists showed slight increases from 1971 to 1976 at both elementary (.16 to .19) and secondary (.15 to .17) levels (pp. 7, 19).

State studies. A number of recent state studies have documented a dramatic rise in the number of educational specialists. At the state level, this rise is reflected in: (1) the numbers of new certificates granted now in generalist and specialist fields compared to the numbers granted several years ago; (2) the numbers of new teachers hired into specialist and generalist positions compared to the numbers several years ago; and (3) the numbers of teachers employed in generalist and specialist positions now compared to the numbers several years ago. Data from a number of states presented in Table 1 provide an instructive picture.

Table 1 about here

Increases in the supply of specialists are most clearly visible in the figures for new hires and new certificates granted. Michigan, for example, saw a doubling in the number of newly-hired special education teachers between 1967 and 1974. Washington showed a similar increase for the numbers of newly-certified teachers in that field. Numbers of newly certified generalist elementary teachers fell in both Indiana and Washington (but rose slightly in New York).

The figures for total numbers of teachers employed in various fields are not quite so dramatic, and there are some increases for generalist teacher employment. Nonetheless, the increases among specialists seem larger and more consistent than those among generalists. Compare, for example, Oregon's increased employment for special education, counseling, and school psychologists with the smaller increase for generalist teachers. A slight drop in the number of special education teachers certified in

Table 1

Changes in Generalist and Specialist Certification, Hiring, and Employment

Group \ State		Indiana	Illinois	Michigan	New York	Oregon	Washington
All teachers	C[1]		62.7 10861/17302 78/74				
	H[2]						
	E[3]					103.8 24539/23639 75/71	
Elementary generalists	C	73.6 2846/3869 75/73			114.6 3804/3318 74/69		54.5 1376/2523 76/71
	H			56.1 1712/3053 74/67			
	E	96.7 30563/31600 74/70		100.0 38453/38222 74/67			97.0 14811/15267 75/70
Secondary generalists	C						57.6 1713/2976 76/71
	H						
	E	103.3 17181/16628 74/70					96.2 15516/16123 75/70
Special education	C	108.3* 536/495 75/73	95.7 2171/2267 78/74		280.3 440/157 74/69		222.8 401/180 76/71
	H			228.5 843/369 74/67			
	E	208.3* 350/168 74/70		168.4 7356/4167 74/67		136.4 1868/1369 75/71	144.2 2194/1522 75/70
Counseling	C				72.7 93/128 74/69		
	H						
	E					116.7 846/728 75/71	121.1** 3486/2878 75/70
Psychology	C				144 26/18 74/69		
	H						
	E					115 23/20 74/71	
Source:		Employability, 1976, pp. 3,22	Lawlis, Note 1, p. 3	Smith, 1975, pp. 11, 12	Preparation, 1976, p. 6	Oregon, 1976, p. 33	Anet, 1977, pp. 28, 56

[1] C: New certificates granted

[2] H: Teachers newly hired

[3] E: Total teachers employed

Note. Top figure indicates percentage current number is of earlier number. Numbers and years are shown below percentage.

* Secondary only

** All support services

Illinois between 1974 and 1978 indicates that some states may be reaching a saturation point with regard to special education. But the size of that drop (4%) was much smaller than that for educators as a whole (37%).

Demand and Perceived Future Need for Specialists

National studies. Immediate and future demand for educators has been assessed in a number of recent national studies. A convenient measure of current demand is the number of unfilled, funded vacancies school districts have at any given time. Using this measure, Goor, Metz, and Farris (1978) found that 35% (3238/9245) of all vacancies in 1977 were in fields related to special education. Of these, about one-half were openings for teachers of the learning disabled. Bilingual teachers were also in short supply.

Other demand studies have used either placement rates for graduates of teacher education programs or projections of future employment prospects made by educators (superintendents, education deans and professors, education students) to estimate demand. A study by Metz (1978) found that teachers of the mentally retarded had the highest placement ratio of any teaching field--80% found jobs. In the same study, superintendents estimated that teachers of the learning disabled (in 1200 of 15,000 districts) and of the gifted (in 900 of 15,000 districts) would be difficult to find and hire over the next several years (p. 2).

The NSPPT (NCES, 1978) surveyed education deans, faculty, and students about perceptions of current employment prospects and projections to three years in the future. All groups saw a present need for special education personnel and bilingual teachers. Deans and department chairs predicted increased enrollment in these areas and in that of school support personnel (pp. 15, 16, 21). And a survey of college and university placement officers identified 15 teaching fields (of 42 in a questionnaire) in which shortages existed as of November, 1978; of those 15 fields, 9 were related to special education or school support services (Akin, 1979).

State studies. Results of recent state studies of demand for teachers generally have paralleled those of national studies: strong demand is predicted in at least some specialty areas, little demand in general elementary or secondary education positions (though some secondary fields such as science and math seem to be chronically undersupplied). Reflecting the higher level of definition that can be gained at the state level, however, those studies show greater diversity than the national ones.

In Indiana, for example, a survey of superintendents found that elementary special education teachers were in moderate oversupply (Employability, 1976, pp. 9-10), while Oregon and Illinois studies predicted continuing high demand for educational specialists in all categories (Oregon, 1976, pp. 4, 32; Report, 1975, p. 50). A study in Iowa of employment patterns among teacher education graduates found that only 10% of special education certificate holders were employed in non-school jobs--the lowest ratio of any teaching specialty. A more recent study in Illinois found 88% of those certified in special education to be employed, again a figure much higher than that for generalists (Lawlis, Note 1, p. 3).

Further detailed estimates of supply and demand for educational specialists were developed by the Bureau of Education for the Handicapped for each state (Progress, 1979). In every category, demand in 1977-78 was higher than available supply in 1976-77, and demand for 1978-79 was estimated to be higher than that projected for 1977-78. (These figures are also uniformly higher than those collected by NCES in its studies of unfilled vacancies. NCES, for example, estimated that vacancies for 1500 teachers of the learning disabled existed in 1977; the BEH estimates the demand at 18,000 for 1978-79, but noted that the difference is probably accounted for by the NCES focus on funded vacancies as compared to the Bureau's concentration on numbers of positions necessary to carry out the intent of special education legislation [Progress, 1979, pp. 54-56].) Unfortunately, the BEH provided no specific information on how these figures were developed; apparently, each state made its own estimate and submitted these figures as part of Annual Program Plans required by law.

Legislation and Regulation: Effects on Supply and Demand

Special education legislation. Clearly one difficulty in interpreting state supply-demand studies is the different status of legislation affecting special education and student services in different states. Since many specialist positions are connected in some way with special education, the presence or absence of legislation mandating such programs at the state level may critically affect perceptions of demand in the state. The passage at the federal level of Public Law 94-142, the Education for All Handicapped Children Act of 1975, will likely reduce such discrepancies in demand as states move into compliance with it. But how does such legislation itself, whether state or federal, actually affect supply and demand? For example, what is the time lag between passage of an "education for all" act and the graduation of increased numbers of specialist teachers? And to what extent can direct grants for teacher training control supply and demand?

In the first case, a study conducted by BEH in 1969 found that the mean supply of special education teachers graduated per year increased from about 16 to 23 per institution after one year of funding under P.L. 85-926 (a program of higher education training grants in the area of mental retardation begun in 1959); the number increased to about 44 graduates per year after 7 years of funding (Education Professions, 1973, pp. 15-19). The only students whose career decisions were influenced by the program, however, were those who were eligible to benefit from it. Students not receiving financial aid under the program, in other words, were not directly influenced by it.

In another study conducted by NCES, durectly funded training programs in such areas as early childhood special education, severely handicapped, and general special education were found not to be effective enough in meeting demand in those areas (Metz, 1978, pp. 34-35).

The perceived "softness" of much funding for specialist programs is a related problem in determining the effect of funding on staffing practices. For although such funding may actually provide more positions and higher salaries for specialist teachers, it is also likely to be perceived by those teachers as less reliable. Principals and district administrators regard classroom teaching as the core of the educational program, though many indicate that they would devote a higher percentage of hypothetical newly available resources to providing more specialist services (Carroll, 1973). Determining the optimum level of and method for stimulating the teacher market, then, appears still to be a difficult task.

Certification. Changes in certification legislation or procedures may also have an effect on the number of specialists working in schools. If a particular type of teaching is defined to require a certificate different from that held by regular classroom teachers, then that sort of teaching becomes a specialty. (Recall that for purposes of this study, subject matter teachers at the secondary level are not considered specialists.) As specialty groups form and demand individual recognition through separate certification, groups that were once thought of as simply "teachers" become "specialists."

Table 2 about here

Data in Table 2 indicate that the number of specialized areas in which separate certificates are granted has grown rapidly over the last decade. Special education teachers, reading specialists, and other specialists are now beginning to be recognized by the states as distinct professional groups. Even the longer-established pattern of specialization by grade-level has been expanded by several states to include separate certification for early childhood education. And in general teaching, twenty states now endorse or certify teachers in their subject-matter fields.

States are also increasingly recognizing through certification administrative specialists (e.g., supervisors, school business officers, teacher-consultants) as distinct from principals and superintendents, counselor specialists (e.g., directors of counseling, school psychologists, social workers) as distinct from counselors (note also the marked increase in the number of states certifying elementary and secondary counselors separately), and library/media specialists (e.g., audiovisual, media, or instructional development personnel) as distinct from "books-only" librarians.

The fact that a system of more specialized certification is developing does not, of course, say how individual states and local districts are actually dealing with those teachers who are certified as specialists. While the NEA figures on the number of teachers assigned out-of-field (cited above) suggest that more and more teachers really do work in the areas in which they were prepared, the extent to which districts

Table 2

Certification in Educational Specialties, 1967-68 and 1977-78

	Number of States Granting Certificates	
Teachers	1967-68	1977-78
Specialization by grade level		
No formal distinctions among K-12	7	10
Elementary/secondary distinction	30	31
Elementary/middle or junior high/ high school distinction	14	10
Early childhood distinction	1	8
Specialization by role or subject matter		
Subject matter distinctions	5	20
Special education distinction	3	11
Vocational education distinction	2	8
Reading specialist distinction	0	7
Additional specialized distinctions (speech, health, driver education, theater, etc.)	7	12
Administrators		
Specialization by grade level/responsibility		
No separate administrator certification	1	3
No elementary/secondary or principal/ superintendent distinctions	8	9
Elementary/secondary and/or principal/ superintendent distinctions	39	35
Assistant or associate principal/ superintendent distinctions	3	4
Specialization by role		
Additional specialized roles (supervisors, business officers, personnel directors, teacher-consultants, etc.)	17	22

Note. Total within each "grade level" subsection is 51 (includes District of Columbia).

Source: Woellner & Wood, 1967; Woellner, 1977.

Table 2 (continued)

Certification in Educational Specialties,

1967-68 and 1977-78

	Number of States Granting Certification	
Counselors	1967-68	1977-78
Specialization by grade level		
No separate counselor certification	8	3
No formal distinctions among K-12	41	35
Elementary/secondary distinction	2	11
Elementary/middle or junior high/ high school distinction	0	2
Specialization by role		
Additional specialized roles (psychologists, social workers, directors of counseling, etc.)	4	6
Library/Media Personnel		
Specialization by grade level		
No separate library/media certification	6	12
No formal distinctions among K-12	41	30
Elementary/secondary distinction	3	6
Elementary/middle or junior high/ high school distinction	1	3
Specialization by role		
Additional specialized roles (audio-visual specialists, media specialists, instructional developers, etc.)	1	3

Note. Total within each "grade level" subsection is 51 (includes District of Columbia).

Source: Woellner & Wood, 1967; Woellner, 1977.

actually assign staff by specialized certification is a matter that would have to be determined separately within each state. A general trend toward specialized certification, however, is evident.

To what extent, though, do more restrictive entrance requirements for a particular professional group act to encourage teachers to enter that area? A perception that additional certification requirements may lead indirectly to more job prospects or to jobs with less competition may be at work here. A number of studies have noted this possibility (Rayack, 1975; Shimberg, 1978). One survey of licensure practices in a variety of occupations in several states noted that:

> the certification procedure often seems to be primarily an attempt by current members of an occupation to increase the professionalism and status of their field. Certification procedures are, in almost all cases, initiated from within an occupation rather than by any outside legislation or group action. (Nafziger & Wiscox, 1976, p. 8)

Pay schedules. Another factor which may motivate students or teachers to enter educational specialty areas, and thus influence the supply of educational specialists, is the generally higher rate of pay for specialists. In the state of Washington, for example, the 1978-79 average salary for specialists of all sorts was $19,229, while the average for all elementary classroom teachers was $17,105, and for all secondary teachers it was $17,899 (Superintendent, Note 2, pp. c-8, e-8). A problem in interpreting these figures, however, is that specialist positions tend to require advanced degrees, and advanced degrees are usually rewarded by districts with higher pay. (In 1975-76, for example, teachers holding BA degrees earned an average of $10,976 nationwide, while MA recipients earned $13,702 [NEA, 1977, p. 44].)

Problems in Analyzing Data on Supply and Demand for Specialists

The analyst confronts a number of problems in attempting to determine the current supply of and demand for specialists in education. For one thing, specialists still are relatively few in number compared to all teachers; individual specialist groups are fractions of a fraction. Perhaps because of this, relatively few state and national studies devote more than a few words to the question of specialist supply and demand. Carroll (1974), for example, noted that "available educational manpower data tend to be too highly aggregative...(t)he data system.... [should be] capable of providing projections of the supply of and demand for teachers, by skill specialization, at the local level" (p. viii). Surveys conducted by NCES include such specialists as special education and bilingual teachers, but exclude psychologists, counselors, social workers, and library-media personnel. And while many state studies predict continuing demand for specialists, few venture specific predictions. Attempts to define precisely the dimensions of specialist supply and demand are therefore crippled by a lack of data for both the nation and for individual states.

Specialist-generalist mobility is another problem about which little is known. Do generalist teachers move into specialist positions under certain predictable conditions? A study of staffing mixes in public schools found that special education and reading teachers were "substitutable" for regular classroom teachers (Ryder & Juba, 1974), and McLaughlin and Berman (1977) urged staff development programs in an era of decline to retrain specialists into generalists. But under what cpnditions might a trend in the opposite direction (generalist to specialist) manifest itself?

Problems such as these, aggravated by the fragmenting effect of numerous separate (and sometimes mutually antagonistic) specialist organizations, make it difficult to give an accurate picture of specialist supply and demand. Nevertheless, several trends appear clear: demand for specialists, partially fueled by legislation such as P.L. 94-142, continues to be relatively high; supply is roughly equal to demand in some places, but more shortages of educational personnel still exist in specialty areas than elsewhere; the effects of various types of legislation on supply and demand are unclear, but specialist groups do act quickly to achieve separate certification status.

III. Generalist and Specialist Teachers: Power and Process

The introduction to this report presented a theoretical perspective on professionalization and specialization drawn from recent work in the sociology of occupations. To recapitulate, the thrust of the argument presented there ran as follows: until recently, scholars have viewed professions as occupations characterized by a set of traits (service, a base in a body of theoretical knowledge, etc.); in this traditional view, specialization is simply an effort to make the profession's application of its abilities to client needs as rational and efficient as possible; some contemporary analysts, however, point to the power that professionalization and specialization provide over clients as a more fruitful starting point for studying what professional groups are and how they act; medicine has become increasingly a profession of specialists and some have criticized it strongly for this.

There is also evidence, as presented in Section II, that teaching is becoming a more specialized occupation. To what extent, then, is this specialization unavoidably due to to increased knowledge about a variety of student problems, and to what extent does it represent the sort of fragmentation for the sake of control that many critics have descried in current medical practice? That is the key question in this section. To try to answer it, it will be important to survey several sources of data about generalist-specialist conflict, to analyze a number of position papers and official statements from generalist and specialist organizations at national and state levels, and to examine data from a series of interviews on the process of referral conducted among generalist and specialist teachers.

Evidence of Conflict among Generalist and Specialist Teachers

Studies of and comments on role conflict among educators in the schools appear most often in the journals and newsletters of teacher and specialist groups. Studies of "role relations" or "role definition" are often based on an assumption that some conflict or disagreement exists. Other papers call for "role expansion"--a redefinition of one group's role to include new responsibilities, perhaps at the expense of another, existing group.

Reports of role conflict. Journals and newsletters of specialist groups are a source of interesting data on how specialists see themselves in relation to their generalist colleagues. The title of an article by Maitland (1976), "Whose child is he--yours, mine, or ours?", aptly illustrates the problems that at least some specialists and teachers encounter in figuring out who will do what with children in the school. Similar problems of conflict between generalists and specialists were described in more detail in a study by Weatherley and Lipsky (1977; see also Weatherley, 1979) of the implementation of an "education for all" act in Massachusetts.

Indeed, special education laws, and the requirements they impose for increased contact between classroom teachers and some specialists have been responsible for a host of position papers and studies on the tensions thus generated. Semmel (1979) and Reynolds and Greco (1979) investigated different aspects of this problem. Semmel noted that knowledge of special education legislation on the part of regular classroom teachers was associated with higher levels of interest and enthusiasm for working cooperatively with special teachers on individualized education plans (IEPs). Reynolds and Greco found that regular teachers who had some experience with special children were more positively disposed toward mainstreaming and toward working with special education teachers. However, in a major review of studies on attitudes toward mainstreaming, Semmel, Gottlieb, and Robinson (1979) noted that "in general, teachers and school principals have expressed a pessimistic view toward mainstreaming" (p. 265).

Other specialist fields have also published comments about conflict between their practitioners and educational generalists. Counselors have complained that teachers do not understand what counselors do (Bauer, 1976; Betts, 1970; Pine, 1975; Quinn, 1969). Teachers and educational technologists have argued over the place that the expertise of the latter group should have in the classroom (Selden & Bhaerman, 1970; Heinich & Ebert, 1976). In a 1977 study, Cohen and others invetigated how reading specialists and teachers worked (and didn't work) together; they found minimal interaction between the two groups, and only 20% of teachers reported receiving any service other than out-of-class instruction to students from the reading specialist on a weekly basis.

Role definition studies. An additional set of studies has focused on how members of a particular group of educational specialists defines their role in the schools and how others define it. Such studies may include comparable views of specialists, teachers, administrators, parents, or students about the role in question. Role research in education has a history of at least 20 years; a study by Gross, Mason, and McEachern (1958) of the role of school superintendent was one of the first attempts to define empirically role perceptions in any field. And while such studies often intend simply to describe how members of two or more groups see each other, the differences these studies uncover are another source of evidence about role conflict.

Specialists in a number of fields have conducted such studies. Lesiak and Lounsbury (1977) found differences among psychologists', supervisors', and principals' views of the desirability of the psychologist's engaging in such activities as remedial training, parent liaison, and development of preventative programs. Schulz (1970) found that generalist teachers and principals tended to assign less importance to the role of the school social worker than did social workers themselves; the former two groups were also uninterested in having the social workers participate in curriculum decision making or implementation of instruction.

A study by Witmer and Cottingham (1970) of elementary teachers' desire to use the services of an elementary guidance specialist showed that teachers were hesitant to grant counselors any role in such areas as parent consultation, curriculum design, or instructional planning--areas traditionally reserved to the classroom teacher. Cheek and Christiansen (1977) found that directors of vocational counseling programs and guidance counselors disagreed about the vocational counselor's role. And Kerr (1977) found that teachers, media specialists, and principals agreed least about those elements of the media specialist's role that dealt with instructional and curriculum decision making.

An especially interesting study by Watkins and Brown (1979) examined the competency and interpersonal skills of elementary and secondary teachers, and of teachers of the mentally retarded. The authors discovered that the specialists (teachers of the mentally retarded) both perceived themselves and were perceived by elementary and secondary colleagues as being more professionally competent and possessing more positive interpersonal skills than the generalists. The authors hypothesized that generalists' resulting sense of "professional devaluation" might be responsible for problems in the way generalists and specialists interact.

Some attempts to sort out specialist roles have been normative rather than empirical. Nugent (1973) proposed a distinction among school counselors, psychologists, and social workers based on the nature of service provided (psychologists and social workers to deal with involuntary student referrals and counselors to deal with voluntary ones), together with the type of training needed to provide these services.

Calls for role expansion. Still another type of information on specialist-generalist intercation is available in commentaries calling for role expansion. These have usually come from within one or another of the specialist groups, and usually suggest that the role of that group be expanded to include new responsibilities. Often, the sort of expansion proposed would result in an improved position for the specialist in question vis à vis other educators. Counselors, for example, have been urged to consult with teachers about general school problems and engage in organizational development work (Murray & Schmuck, 1972). A new role for media personnel has been seen in encouraging communication among teachers in the school (Kerr, 1978). And psychologists have been exhorted to deemphasize the technical nature of their work and focus more on "helping approaches" (Maroldo, 1972).

While some of the changes suggested in these proposals would introduce genuinely new roles into school settings, others might simply mean a redistribution of existing responsibilities in ways that would enhance the position of a particular specialist. There is not a great deal of evidence that such changes occur frequently or rapidly. The mandated provision of special education on a broad scale, however, and accompanying need to assure careful role definition between generalists and specialists, has perhaps set the stage for future conflicts on a larger scale than has yet been seen.

The Positions of National Organizations on Generalist-Specialist Interaction

Evidence that generalist classroom teachers perceive at least a potential threat to their position in the rise of specialists can be seen in a resolution passed by the NEA in 1978. The resolution pertained to P.L. 94-142, the Education for All Handicapped Children law; while the resolution supported the intent of the law, no fewer than 16 qualifiers were appended, among them the following:

> f. The classroom teacher(s) must have an appeal procedure regarding the implementation of the program, especially in terms of student placement.
>
> o. All teachers must be made aware of their right of dissent concerning the appropriate program for a student, including the right to have the dissenting opinion recorded. (NEA, 1978, p. 213.)

McDonnell (1977; McDonnell & Pascal, 1979) reported a dramatic surge in the number of professional issues that figured in collective bargaining negotiations during the 1966-71 period. Among these, the use of teacher aides and special education assignment, two issues related to specialization, showed increases of 612% and 723%, respectively. Such issues were predicted to become more prominent in coming years as financial resources become scarcer and "bread and butter" demands thus become less realistic.

Cautions have also been voiced about the possibly destructive effects of a "micro approach" to educational program accreditation and certification by numerous separate professional organizations. Such an approach, warned Koff and Florio (1977), could lead to "the education profession becoming a collection of societies or groups each in search of a professional identity" (p. 37). (A nearly identical set of points with regard to medical certification was raised recently by Chase, 1976.)

But separate certification for specialists continues to be an important target for specialist organizations (e.g., AECT, 1977). And important national organizations have also urged that admission procedures and criteria be individualized by field (e.g., Arnold, Denemark, Nelli, Robinson, & Sagan, 1977, p. 23; Rebell, 1976, pp. 18-19).

Teacher certification and state law. Defining legally the standards specialist and generalist teachers must meet for certification is a prerogative of the state. In many states, professional standards boards now have advisory (and in two states full legal) responsibilities for defining those standards. It is interesting to note that of 28 states having such boards, all include classroom teachers (at least implicitly) on the board, while only eight include specialists (NEA, 1976; NEA, Note 4). The California Commission for Teacher Preparation and Licensing, one of those with both specialist representation and legal authority, had some difficulty recently in defining standards for special education personnel (LoPresti, 1979; McDonnell, 1977).

The composition and role of these boards (and especially those with full legal authority over certification) needs to be more thoroughly investigated. In a study of board regulation of non-teaching occupations, Rayack (1975) found a distinct relation between economic conditions (unemployment in a given occupation) and restrictions imposed on the numbers of entrants. Rayack also found such boards to be remarkably insensitive to consumer complaints and very hesitant to revoke licenses. Given the predominantly generalist orientation of most teacher-certification boards, it will be interesting to see how issues of specialist regulation are handled.

A Study of Generalist-Specialist Referral Practices

Why study referrals? The actual work that educators do each day--the teaching of classes, working with individual students, or administration of programs--does not necessarily throw one educator into contact with another. In the case of generalist and specialist teachers, the only situation in which they must work with each other is when a student is referred, first by the generalist to the specialist, then, often, back to the classroom teacher. Referral, therefore, is probably the best issue to choose as an indicator of sources of strain in the relationships between generalist and specialist teachers. Before proceeding to a description of the study conducted for this project, it may be worthwhile to consider briefly referral among physicians.

Referral in medicine. Physicians are rarely completely independent in their practices. Generalists need and depend on a network of specialists to provide guidance on particular problems, and those specialists who do practice relatively independently (opthalmologists, pediatricians, obstetricians, etc.) need to be able to refer their clients to generalists on occasion. Freidson (1970, pp. 91-98) points out that complex, informal social networks develop among generalist and specialist physicians to handle referrals.

For physicians practicing by themselves, referrals have an important economic implication. A generalist referring a patient to a specialist may lose further income from that patient if the patient elects to continue seeing the specialist rather than return to the generalist. Specialists face similar problems in referring their patients to generalists. Assurance of reciprocity and guarantees against theft of patients therefore become critical for generalist and specialist alike. Such assurances are provided in a variety of progressively more formal types of organization--associations, partnerships, and various types of group practice culminating in the prepaid medical service plan in which physicians effectively become employees of insurer or clients. As physicians become more and more collectively organized, then, the process of handling referrals becomes more formal and routine, and the economic consequences of referral become less important.

Teachers work primarily in collectively organized public bureaucracies. If teachers share the pattern of generalist-specialist relationship common to physicians, then, they could be expected to deal with referrals in a relatively formal fashion. Also, the lack of immediate economic incentive should remove much of the tension from generalist-specialist encounters. Many specialist teachers are located in central district offices (a situation similar to that of specialist physicians in Great Britain under a centralized, state-supervised medical program [Stevens, 1966]). This could be seen as further isolating specialists from competition with generalists for clients.

But even isolation from economic hardship does not seem to remove conflict from generalist-specialist relations, at least among physicians. Freidson, in a study that focused specifically on physicians employed by a large, pre-paid medical plan, found that:

> The type or quality of referral was an issue of equal if not greater importance than the number of referrals in delineating the source of conflict. Furthermore, by examining what was chosen for referral and how that influenced the tasks that consultants [i.e., specialists] were accustomed to perform, it was possible to show that not merely the quantitative workload but also the very substance of specialization in the division of labor, the very nature of the work by which specialized

> services were defined, was at issue.... Thus specialization itself proved to be elastic in character, with the sources of stress and resistance stemming from the physicians' conceptions of their dignity and career success--their very identities as physicians--rather than from impersonal technical imperatives given by work itself. (1975, p. 85)

So it seems that, regardless of economic motivation, specialization may create problems because it changes the division of labor in the organization. Concerns about identity, career success, dignity and, implicitly, power, may span the professional boundaries of medicine and teaching. The question of interest here, then, becomes one of determining whether such sources of conflict exist between generalist and specialist teachers.

Methodology. The series of interviews conducted for this study were conceived of as exploratory and open-ended. The reader is therefore cautioned to use appropriate discretion in interpreting the results reported here. The small sample sizes and (in some cases) non-random selection procedures necessitated by this type of study do not permit statistical inferences to be drawn from the data.

Three school districts were chosen for analysis in this study. The intent was to choose districts with fundamentally different patterns of organization for specialist services. An initial sample of districts was identified through consultations with key figures in the Office of the State Superintendent of Public Instruction and the state NEA affiliate, with presidents of specialist organizations, and with district administrators. From these possible districts, three were selected for the study: a group of several small rural districts offering specialist services cooperatively; a suburban district with centralized specialist services; and a large urban district with a variety of specialist services and programs.[2] For purposes of this report, the rural cooperative will be identified as "Evergreen," the suburban district as "Fillmore," and the urban district as "Weston." (None of these names is the actual name of the district in question.)

Following selection of districts and obtaining their agreement to participate in the study, samples of generalist and specialist teachers and relevant administrators were identified. The method of selecting teachers and specialists varied from district to district; in the rural (Evergreen) and suburban (Fillmore) districts, essentially all relevant specialists and administrators were interviewed, and teachers to be interviewed were selected randomly. In the urban district (Weston), a particular pattern of specialist services known as the Child Development Center Program (CDCP) was chosen for study. Teachers and administrators were interviewed in three schools in which that program was operating.[3]

This was the distribibition of the final set of educators interviewed:

District	Teachers	Specialists	Administrators	Totals
Evergreen	8	9	4	21
Fillmore	10	10	7	27
Weston	6	7	5	18
Totals	24	26	16	66

Teachers, administrators, and specialists were interviewed either after school or during planning periods. Interviews took from 30 minutes to 2 hours to conduct. Questionnaires were coded to assure anonymity. All those who participated in the study received an honorarium of $4.00.

An interview schedule was prepared and pre-tested with educators from each of the districts. The questionnaire focused on generalist-specialist interaction, and on referral practices in particular. Some specific questions were based on Freidson's (1975) study of physician referrals. (A copy of the educator interview schedule is included here as Appendix A.)

Further discussion of the results of this survey will focus on these five areas: (1) agreement on appropriate grounds for referral; (2) methods for dealing with areas of disagreement; (3) perceived importance of and ways of following up on referrals; (4) perceived student reactions to being referred; and (5) predictions for the future of specialism in education.[4]

Agreement on grounds for referral. Overall, the generalist teachers interviewed in this study said they agreed with specialists on what appropriate grounds for referral are. Comments such as "It's cut and dried," "I've never had a referral rejected," or "We just follow the [state] guidelines [for determining eligibility]" abounded. There were, however, some undercurrents in the responses. One recurring point was that the official state guidelines do not allow enough flexibility to help all children really needing special attention: "We agree on helping children with problems," "Limits on the number who may participate [in a remedial reading program] force me to help many without documentation," "We agree on what we want to do, but not about the guidelines," "When a child does not meet requirements, I proceed as if they had and do whatever I can... for them," "Teachers refer from human need and specialists use impersonal test scores to judge."

Only a few teachers felt that they disagreed more often than not: "Criteria for program placement leave many grey areas," "We shouldn't wait until a student falls three grades behind to help him." Only 5 of 24 classroom teachers felt that there was this level of disagreement between themselves and specialists. No strong differences among districts appeared, though teachers in Weston made a strong distinction between their general approval of the Child Development Center services (which use psychologists, social workers, counselors, and paraprofessional aides; such programs are located in inidividual schools) and their somewhat less positive evaluations of regular services available from central district offices.

Specialists' responses were somewhat less sanguine about the question of teacher-specialist agreement about grounds for referral. Indications of this could be seen in their generally longer and more qualified answers to the question. Overall, about one half claimed that agreement exists and the other half found serious problems. A number of specific concerns stand out in specialists' replies.

First, there is the issue of "dumping." "Behavior problems with kids who test 'at level' are always a source of disagreement," noted one Weston specialist; one of his colleagues recalled "a student referred for being 'low in reading' who was really just disruptive." A Fillmore specialist commented, "It's easy to confuse a student's ability with his disciplinary problems." Others who have investigated the way in which special services are provided have also noted this problem (e.g., Kritek, 1979).

A second problem concerns the conflict specialists feel between the need to work within precise state guidelines and a desire to provide services. An Evergreen specialist noted that "I want to help students and not be bothered with legal issues and paperwork," but a colleague saw a need for a "strict formal process." Some specialists were forthright about the role their own judgment plays: "If I feel a student shouldn't be in the program, I'll test him fully, and he must qualify on each test. But if they do need it, I'll fudge the results." And another commented: "I usually get my say on who's in the program and who's not."

Differing levels of "teacher training, personal growth, and 'levels of consciousness'" were cited by other specialists as sources of disagreement. Some felt that time would take care of these problems as teachers gradually become aware of program criteria and procedures.

Specialists in Fillmore expressed the highest level of agreement with their generalist colleagues, while the most disagreement seemed to be in Evergreen (perhaps reflecting the physical separation of specialists and teachers in this multi-district consortium). Comments in Weston reflected the greater diversity of problems in a large urban district.

Administrators tended to see disagreements over referrals either as resolvable through recourse to legal criteria ("Most cases are fairly obvious," "It's spelled out by law"), as cases of personality clash between specialist and classroom teacher, or as "borderline cases" in which any resolution is difficult ("Disagreement comes over the problems that are more subjective"). In dealing with disagreements, administrators seemed about evenly divided over whether they would accept the specialist's or the teacher's assessment; most, however, did claim that they would seek the best solution for the child.

No major differences among districts were notable, except that the administrators in Weston schools tended to see the CDCP specialists not as members of a special, separate program, but rather as part of the regular school staff.

Dealing with disagreement. Teachers indicated some feelings of frustration when asked how they would deal with conflicts over referrals. Most said they would simply continue working with the child in class as best they could ("I'd tough it out in the classroom"). Others would consult informally with specialists to try to get some help. Only a few indicated they would have the principal mediate such a dispute or that they would collect evidence to try to present a stronger second case. One teacher saw parental involvement as an effective tactic to use in such a case.

Specialists' responses to this question were somewhat defensive; many felt they had a right to protect their limited time and resources, and that they had a responsibility to tell teachers this ("I try to get the teacher on my side; I sell my program"). Others said they would stress legal requirements. But many said they would work outside of legal and official channels to get some help for a child needing it.

Administrators focused on two approaches: increasing teacher understanding of rules and criteria for providing services, and working out programs through informal consultations.

Following up on referrals. Almost all teachers interviewed for the study said that following up personally with specialists was "very important," "vital," or "extremely important." Most also felt that they went out of their way to keep lines of communication open with specialists. A few noted occasional problems ("Often there is not feedback," "I sometimes have to ask for more information"). Only two teachers expressed disinterest in following up on student referrals ("I worry about how a person does in my room and this is what counts").

Responses by specialists were quite similar to those of teachers, but with some differences in tone. Again, there was general agreement that follow-up is very important and that it occasionally doesn't happen to the extent that it should. But specialists seem somewhat more "guilty" in their comments, with many taking blame on themselves for not staying in touch with teachers: "I would like to do more follow-up, yet I'm limited by time." Lack of time was the reason most commonly cited for this problem. Specialists also stressed the verbal and informal nature of feedback more than teachers did; perhaps this is because this sort of discussion of a child's problems is so different from the "paper shuffling" in special programs about which many of them complain bitterly. Only a single specialist indicated that giving feedback was unimportant.

Administrators saw feedback as important, but there was also a more removed feeling to their comments. Most felt that teachers and specialists were following up adequately, and that informal meetings were more common and more important than formal ones. Curiously, only one administrator mentioned encouragement of communication between generalist and specialist as part of his own job. Others seemed to assume that such communication just happens: "They stay in contact by being in the same school."

In sum, educators find follow-up on referred students desirable but sometimes fairly difficult to accomplish. Some reported real problems with giving or receiving feedback, but most seemed satisfied with the informal nature of that feedback. There was minimal evidence of possessiveness or of animosity between teachers and specialists. A few generalists, however, did feel they should be consulted more about the development of student individualized education plans (IEPs) ("I see that student more than anybody; I could help more!") And some specialists felt that teachers "have an 'out of sight, out of mind' attitude about referrals."

How do students react to being referred? Educators' observations about how students themselves react to being referred were varied and interesting. This was one of the few questions for which responses seemed to vary by district; it was also one to which educators in all three groups responded at length.

Teachers in Fillmore were unanimous in seeing no problems for students who were referred. But in Weston, teachers noted a number of difficulties: students who miss planned class activities feel left out; some teachers indicated that their generalist colleagues occasionally made negative comments about a student's "having to work with a specialist"; others saw problems with "head clearing" or "gear shifting" for students who have to make midday transitions. In Evergreen, some teachers felt there were no problems for students, while several others noted difficulties because of peer pressure and pejorative labeling of students as "queer" or "weird."

Specialists in the Fillmore district (where teachers saw no student problems with transitions) were generally positive, but several discussed difficulties--unwillingness of teachers to take students back into regular classes, students getting "out of practice" with group teaching methods, and so on. In Weston, several specialists mentioned the problem of recidivism among students who return to regular classes too early; others noted the general difficulty that transitions seem to cause students. In Evergreen, a number of specialists noted the "stigma" that is attached to special education, the possible development of negative self images among special education students, and problems with "role playing" (a student's paying attention and working in a resource room, but reverting to old behavior patterns in a classroom).

Administrators in Fillmore did not see major student problems stemming from referrals. They assumed that regulations and laws mandating teacher-specialist interaction and student monitoring would prevent any problems. In Weston, the CDC Program seemed to administrators not to cause problems with student transitions: "Staff are present with regular teachers in the classroom," noted one administrator. Others also commented that the visibility and integration of specialist services made transitions much easier than was the case with the regular, centralized district program.

Why are there these differences among districts? Fillmore's perceived lack of problems with student transitions may be due to the district's relatively small size (6700 students) and location of most specialist services in individual schools. In Evergreen, a cooperative of districts, students may have to travel further and thus experience more problems in referral. In Weston, educators saw some problems, but also seemed genuinely to like the CDC Program for putting specialists and teachers in close touch with each other. The variety in types of problems noted is also interesting--all students apparently do not find it easy to make a switch from one teacher to another, day after day, while some older students (junior high level) seem to find it difficult to view special students as peers. The problem of recidivism and its potential ill effects on students was also seen as an important one.

The future of educational specialism. How do educators themselves perceive the future of education? Do they see specialization on the rise? Teachers overall favored generalist preparation strongly, but a significant minority would recommend specializing (perhaps with generalist experience first): "For economic reasons, be a specialist," said one, while another added, "Specialism is the big area on the horizon" (but one did feel that specialist fields were already "glutted"). Another seemed to have a fairly clear picture of demographic trends and their influence on occupational choice: "Specialize so you can get a job. There are more job openings in specialties now, but there'll be a generalist shortage by 1985. Until then, specialize."

Curiously, specialists seemed to see the future in roughly the same terms as teachers. Many recommended regular classroom experience as a prelude to specialization. And while some did note increased job possibilities, they tended to see this as a temporary condition with "monies getting tight" in specialist fields as well as in generalist teaching. Also, many specialists stressed the personal qualities of care, patience, and understanding as being particularly necessary to a future specialist.

Interestingly, administrators were most enthusiastic of all about encouraging aspiring educators to go into specialist positions: "I would recommend specialization, because that's where the jobs are now," "For economic reasons--specialize!" Some, however, did note problems accompanying a career decision to become a specialist--"Many specialists burn out fast," said one, while some simply preferred general classroom teaching: "The regular classroom is where education takes place."

No dramatic illustration of the theory of specialization as intra-professional boundary creation comes out of this small survey of the relations among educational specialists, generalists, and administrators. Yet, problems and differences do exist--some classroom teachers think specialists are too concerned about rules and regulations, while some specialists accuse teachers of dumping the problem children generalists can't manage. Nevertheless, the overall picture is one of helpfulness and, above all, concern for the welfare of the child.

It is interesting how many administrators and specialists were willing to wink at or work around regulations that they felt would impede a child's progress. And, although state and federal laws mandate a fairly precise sort of referral process, much of the working out of IEPs and the passing of records back and forth seems to take place informally. While this may be a way for educators to cope with what they see as an unwarranted flood of paperwork, it is questionable whether the lack of documentation and possibility for "judgment calls" are good for students and parents. There will be occasion to discuss these problems further in Sections IV and VI.

IV. Specialization: Effects on Quality

One of the main arguments employed by critics of medical specialism has been that such specialism is inherently uneconomical and inhumane for the clients (patients) the medical establishment serves. The intent in this section is first to examine that claim and see if there is any empirically discernable decline in the overall quality of medical service provided to the populace by a highly specialized system. The second, and larger, aim here is to do the same sort of analysis for education and then to describe attempts that have been made to encourage productive interaction among teachers, specialists, students, and parents. Two areas in particular where such attempts have been made will be considered here: different administrative patterns for organizing specialist services, and efforts to involve parents in planning for specialist services.

The Effects of Medical Specialism

Critics of specialism in medicine have pointed to two important negative effects for clients of the health care system: escalating costs, and "inhumanity" due to fractionalized service. With regard to the former, Ivan Illich, certainly one of the most outspoken detractors of specialism, notes, "The cost of coordinating the treatment of the same patient by several specialists grows exponentially with each added competence" (1976, pp. 242-243). Others have taken exception to certain specific aspects of specialized practice, such as the demands it seems to place on hospitals for increased expenditures on equipment such as computerized axial tomography (CAT) scanners (Marshall, 1977a, 1977b).

But it is the problem of dehumanization about which Illich and other critics have become most exercised:

> the progressive fragmentation of needs into ever smaller and unconnected parts has made the client dependent on professional judgment for the blending of his needs into a meaningful whole. (Illich, 1977, p. 33)

> Specialization and assembly line processing of patients has become inevitable. The patient can no longer be treated as a whole person because few physicians are equipped to do so. (Carlson, 1975, p. 35)

> With the growth of medical knowledge, a patient often finds himself shuffled from specialist to specialist, without having a single physician coordinating their efforts. (Maxmen, 1976, p. 33)

> medical practice continues to develop...an elaborate technology--and related task specialization--which has had spectacular categorical success but has failed to come to terms with the profound moral and social issues in the practice of medicine and its role in society. (Mechanic, 1976, p. 14)

Most of these critiques of medical specialism have simply advanced a claim: that specialism necessarily leads to patient dissatisfaction and to a decline in the quality of medical service offered. The evidence advanced in support of this claim has usually been minimal. Indeed, a project sponsored by the National Center for Health Services Research concluded that:

> Little is known about interdisciplinary management of the problems of individual patients, much less about the impact of interdisciplinary care on health problems of populations, and even less about whether interdisciplinary cooperation fostered during education has a practical result. (McGraw, Fox, & Weston, 1978, p. 544; see also Gross, 1974)

While some research has been done to determine continuity among a person's sources of health care, for example, it still rests on an "underlying assumption...that...a person is better off...the fewer the number of sources seen" (Shortell, 1976, p. 389). In one demonstration program, health practices (although not necessarily health states) of subjects were found to improve as the quality of primary care improved (Janeway, 1974).

One major study did attempt to determine some of the effects a highly specialized system of medical care has on provision of general medicine. The principal finding was simply that many specialists (especially pediatricians, gynecologists, and cardiologists) do provide satisfactory primary care themselves to large groups of patients. But the study did not address the questions of whether quality of care differed when rendered by generalists as compared with specialists, or of patient satisfaction with generalist as opposed to specialist services (Aiken, Lewis, Craig, Mendenhall, Blendon, & Rogers, 1979).

In medicine, then, there seems to be a great deal of concern over the effects specialism may be having, but little concrete evidence that would support a case for or against it. While it appears that many patients do receive their primary care from specialists, it is equally arguable that this system is both uneconomic and unnecessary for a high general level of health among the population. Great Britain, for example, has managed (with about 70% of physicians in general practice and 30% in specialties) to attain health care statistics comparable to those of the United States (in which those proportions are essentially reversed)(Stevens, 1966, p. 357). The negative impact of specialism may therefore be partly economic and partly affective, with the latter area much discussed but little investigated.

The Effects of Educational Specialism

If medical authorities have been concerned about the impact of a specialized profession on their patients, what has been the reaction of educators to specialization in that field? Special education includes the largest number of separate educational specialty groups, and so it would be sensible to expect to find comments on the effects of specialization in that literature. It is also true, however, that most of those writing in that field are themselves employed there; that they tend not to emphasize negative effects of specialized programs is therefore perhaps understandable.

Nonetheless, some information is available. A major study by Weatherley and Lipsky (1977; Weatherley, 1979) of a state-mandated special education program found occasional failures by teachers to respond to parent needs and feelings of confusion among students about who their "real" teacher was. The set of interviews conducted for this study, as discussed in Section III, revealed a relatively high level of concern among both generalist and specialist teachers about students' abilities to make an easy transition from one class to another. And a recent major review on mainstreaming found that handicapped children integrated into a regular classroom may encounter a "societally based hierarchy of attitudes toward different handicapping conditions"--attitudes which tend to assign to the handicapped child a fairly low social status (Semmel, Gottlieb, & Robinson, 1979, p. 263). The same review noted teacher pessimism at having to deal with mainstreamed students. The authors concluded that "there is an absence of data to support an empirical basis for mainstreaming at the present time," and noted that moral arguments seem to have precedence.

Others have commented on different impacts of specialism on educational practice. Kirp and Kirp (1976) saw a dilemma in the increasing number of legal cases involving school psychologists and placement decisions: withdrawal into extreme formalism may preserve job security but lead to more parent mistrust, while seeking a "genuine rapport" with parents, teachers, students, and administrators may be rewarding but also risky. Despite the risks, the authors counsel the latter course. A study of teachers and students conducted in connection with the Alum Rock, California, voucher experiment compared student satisfaction in schools where teacher interaction was fostered and in those where it was not. Although specialist services were not involved, a high rate of teacher-teacher interaction was correlated with higher student satisfaction (Abramowitz, 1977).

Still other problems in dealing with specialists have been noted by parents: the "'hot potato game': the tendency of some professionals to refer hapless parents from specialist to specialist" (Roos, 1978), or a "superiority (professional) - inferiority (parent) interaction" (Turnbull, 1978). A study conducted by the National Committee for Citizens in Education found that, amid general parent satisfaction with the development of IEPs in special education programs, there remained some problems: parents still do not participate fully in the development of IEPs, do not feel competent to participate, and do not receive information on how to appeal evaluations; 45% felt that "annual goals set in this IEP did not fully meet the educational needs of their children" (Salett, Note 3, p. 6).

Administrative Patterns for Specialist Services

Educational administrators have been conscious for some time of the possibility of fragmentation in service that increasing specialization provides. Consequently, there have been more than a few administrative proposals for the organization of specialist and generalist services.

Many studies have noted that school teachers tend to be virtually autonomous in their classrooms and little interested in working cooperatively on student problems (Lortie, 1975; Miles, 1967). Consequently, administrators have been urged to foster greater interaction among teachers in a school. And while many of these proposals have dealt with generalist-generalist interaction, the principles involved have sometimes been applied to generalist-specialist exchanges (e.g.: Carter & Lynch, 1977; Goldman & Moynihan, 1972; Oakland, 1976). Such commentaries, however, are generally normative recommendations rather than empirical reports.

One major organizational effort to encourage productive interaction involved educational research and development workers from different specialty areas, together with a group of classroom teachers. Several factors were found to contribute to positive interaction: opportunities for joint work created by the organization; administrative efforts to create "ideal type" roles that include elements from several different fields; and the elimination or minimization of status differences among specialists and generalists (Salmon-Cox & Holzner, 1977). Other studies have shown teacher-teacher or teacher-generalist interaction positively related to teacher confidence and interest in pupil management, curriculum, and novel teaching methods (Cohen, 1973; Johnson, 1976).

Programs of pre- or in-service education designed to improve interaction among teachers have also been developed to cope with the problem. A teacher "self-study" program, for example, urged teachers to record their feelings of satisfaction and frustration based on their work with colleagues and specialists. Simply sharing these observations among themselves became a very rewarding experience and one that led to increased empathy and understanding (Flatter & Koopman, 1976; see also Kelman & Wolfe, 1976).

In a similar experiment in medical education, participants also found that sharing perceptions in this manner led to an "enhanced sense of community" among specialists from different fields (Boyer, Lee, & Kirchner, 1977).

Individual case studies of how to make generalist-specialist interaction more productive have focused on a variety of factors: precise role definition for the parties involved (Gifford, 1978; Central, 1978); increasing the amount and quality of information flowing among teacher, specialist, and administrator (Westbrook, 1977); and the use of "in-basket" exercises to train specialists (Arikado et al., 1974).

One cannot say, after surveying the literature on administrative integration of specialist services, that a great deal of innovative thinking and planning has taken place in this area. Recommendations that teachers and specialists work more closely together are admirable, but they tell little about why there has been such difficulty in encouraging such interaction in the past. Similarly, it seems to make good sense that generalists and specialists who take some time to talk with each other will develop a better sense of what the role of each should be. But why have there not been more carefully structured programs to make this sort of contact a regular and expected part of teachers' work? Perhaps now that specialism is an increasingly important aspect of education these questions will be more seriously considered and a wider variety of novel administrative solutions tested.

Parental Involvement and Specialist Services

A difficulty with the "medical analogy," as examined in this report, is the different nature of the client in medicine and education. The medical client, or patient, is in most cases an individual who seeks services because of a medical problem the patient recognizes. In education, however, the client is not only the student but also the student's parents, who (in theory, at least) are entitled to some say in the content and method of that student's treatment in the educational system. Parental involvement in educational decision making is a value of long standing in this country, and so it makes sense to look at the ways in which parents have and have not been included in planning and carrying out specialist services in the schools.

In the study conducted by NCCE (Salett, Note 3), investigators found a good deal of parental approval for the way in which specialist services were provided: "Over two-thirds of responding parents felt adequately informed about the IEP and felt that the IEP generally fit their children's needs. Only five percent refused to approve their children's IEPs" (p. 4). But the problem of general lack of parental involvement in the development of plans for their children led NCCE to propose district-wide advisory councils, mandated parental involvement in IEPs, and delay in preparation of IEPs until after initial parent-staff meetings.

A number of reports and studies have noted the difficulties parents may have in working with educational specialists. Teachers' use of jargon has been denounced as obfuscating (Rutherford & Edgar, 1979, p. 4). And parents have indicated feelings of inadequacy in confronting what they feel to be the superior knowledge and ability of specialist teachers (Morra, 1979; Progress, 1979, p. 93). This should not obscure the fact, however, that passage of P.L. 94-142 in 1975 was due largely to increased parental militancy in demanding expanded specialist services (Sarason & Doris, 1979).

Many have championed the case for early parental involvement in decisions on special education. Wandler (1978) urged school psychologists to analyze test results jointly with parents and to solicit their comments on the data. Among other specialist groups, counselors have been frequently urged to go to the community through PTSA meetings and other forums to discuss their programs (Nelson, 1974; Quenon, 1977).

At least a few studies have demonstrated empirically that parental involvement may have an effect on children receiving specialist services. Hill (1977) found that academic performance improved with more parent participation in deciding program content. And a practicum on parent-teacher planning for child management was rated highly by 96 of 108 participants (Adreani & McCaffrey, 1974).

These various studies of parental involvement provide a mixed picture. On the one hand parents are eager to be involved in any planning affecting their children's future; on the other, feelings of inadequacy and inferiority may prevent them from becoming involved. While there has been intensive activity on the part of a minority of parents with regard to the special services their children use, the majority have yet to come in regular contact with specialists.

Perhaps education suffers in dealing with this particular problem exactly because it has had such a long and successful tradition of community participation. Social scientists who have analyzed the "consumer revolution" in medicine and other professions have predicted that aware and demanding clients will force changes in the ways in which professional services are provided, and that negotiation of standards will then become the major issue between clients and professionals (Haug, 1975; May, 1976). In education, parent participation has been a "given" for many years. The danger is that parents and community members will accept a role in the definition of only the general education program, and not press for a voice in how specialist services are planned. Since those services are often funded by state or federal agencies, and since they affect fewer people than general programs, there may be a temptation to leave the shaping of specialist services to the specialists and to those parents with a particular stake in those services. It is important, then, that we find ways of assuring all clients of the educational system that they can and must assist in making decisions about specialist services, decisions that will be increasingly important as educational specialization grows in the years to come.

V. Medical Responses to Specialization

While educators have only recently begun to specialize in their work, physicians have worked in a highly differentiated profession for years. And while there has been some criticism of medicine for being overspecialized (as noted in the preceding section), it makes sense to suppose that physicians may have developed some interesting ways of coping with the fragmenting effects of specialization. A number of these developments will be considered here: training to encourage a generalist outlook; training and administrative arrangements to encourage generalist-specialist interaction; the effects of state legislation and consumer participation strategies on specialized care; and the rise of the "holistic health" movement.

In addition, the particular problem of referral, discussed earlier with reference to teachers in Section III, will be examined here in the context of a large, pre-paid health care plan in the Pacific Northwest. Data from a survey of generalist and specialist physicians (conducted using a schedule parallel to that administered to teachers) will illuminate the latter discussion. Finally, teachers' and physicians' perceptions of referrals will be compared.

In all these areas, the intent is not merely to define what the medical profession has done and is doing about specialization, but also to ascertain which of those developments might be applicable to specialization among educators.

Training for a Broader Emphasis on General Practice

Of the medical school class of 1960, about 14% were in practice as family physicians in 1973, a figure that was roughly equal to the 15% of all US physicians who were working as general practitioners at that time

(Schwartz & Cantwell, 1976). Yet in 1971, only 1.4% of interns and residents were in training in general practice programs (Ebert, 1973). Realizing that continued production of large numbers of specialists could be counterprodictive both for individual practitioners and perhaps for public support for organized medicine, the medical profession began in the early 1970s to encourage more medical students to undertake careers in general medicine (Rhoads, 1974; Lee, LeRoy, Stalcup, & Beck, 1976). The 1976 Health Professions Educational Assistance Act (P.L. 94-484) mandated that a 50-50 distribution of residencies in primary care to those in specialties be achieved by 1980 (Ginzberg, 1979).

Training for Interaction

Physicians have also been encouraged through pre- and in-service education programs to become more interdependent and cooperative in their work. Some of these efforts have been directed primarily at having physicians accept as equals, or at least as real partners, members of what are now commonly referred to as the "allied health professions." Responses of groups of nurses (Kinsella, 1973), occupational therapists (Cromwell, 1971), social workers (Halliburton & Wright, 1974), and others have urged closer and more productive working relationships between their members and physicians. And physicians themselves have called for better communication among generalists and specialists (Horder, 1977). While some have expressed doubts over the possibilities of establishing the sort of relationships envisioned (e.g., Rae-Grant & Marcuse, 1968; Hayes, 1974; Sammons, 1975), there have been many proposals for training as a way of reaching these goals.

Stoeckle and Twaddle (1974) offered a general analysis of the growing role of non-physician health workers and indicated novel areas in which education programs might be effective: training allied health personnel to take over coordinating functions usually reserved to the physician; training patients to do some of their own treatment (in order to cut down on the number of transfers of orders involved). Welch (1978) noted the use of a variety of health care personnel on a hospital review board. And a major study by Pozen, Sorenson, and Alpert (1979) found that a special program for medical students choosing a generalist career both supported them in that decision and encouraged positive interaction between the student and specialists.

Administrative Patterns for Improving Interaction

Perhaps the most striking device for achieving more effective utilization of specialist services is the health maintenance organization (HMO). The most common HMO structure is a relatively large medical plan in which the client is not billed separately for services, but rather pays a single monthly fee and in return is given complete health care. The Kaiser-Permanente systems in California and the Group Health Cooperative of Puget Sound in the Pacific Northwest are the largest and most successful of these systems.

Clearly, HMOs have strong economic motivations for keeping their costs down. One administrative device by which they have done so is particularly relevant to the discussion here. It is simply this: in most HMOs, patients are not permitted to refer themselves to specialist physicians; rather, they must first see a family practice generalist who screens all cases (Mechanic, 1976; in actual practice, some self-referral is usually permitted, e.g., female patients may self-refer to gynecologists, parents to pediatricians, and so on). In this sense, the system is similar to national medical care plans such as that in Great Britain (Stevens, 1966).

Controlling patient access to specialists is a rationing system and not one in and of itself calculated to either improve patient satisfaction with medical care or enlarge the scope of generalist-specialist joint work. Nonetheless, HMOs have been aware of this problem. Many HMOs have expanded their use of nurse practitioners and other paraprofessionals to fill the "gap" in primary care felt by patients who suddenly must confront their doctor in a bureaucratized setting (Mechanic, 1976, pp. 112-116; Levine et al., 1976). An interesting study by Svarstad (1976) found that physician attempts to educate and motivate patients regarding their illness were effective ways of improving physician-patient interaction and of reducing the effects of HMO bureaucracy.

Physicians working in HMOs have found other ways of coping with the problems of generalist-specialist interaction in a bureaucracy. Freidson (1975) noted a variety of informal "boundary negotiation" procedures used by doctors, and showed how these informal processes came to define formal procedures in the organization.

There have been relatively few studies outside of HMOs on improving contact among generalists and specialists by administrative means. In one study, the quality of clinical records (and, presumably, of patient care) and the amount of communication among health care workers were both found to vary positively with sharing clinical administrative control and with mutual recognition and esteem among those involved (Nathanson & Becker, 1973).

The Effects of State Legislation

In addition to educative and administrative efforts to improve generalist-specialist interaction, states are beginning to examine such relationships more closely and to impose legal standards on both generalists and specialists. Hirsh (1977. p. 249), in a review of this question, noted that courts have generally accepted three guidelines on situations requiring a general practitioner to make a referral: (1) on a patient's request; (2) in a "doubtful or difficult case"; or (3) if the quality of health care "can be conceivably enhanced" by a referral. Others have urged general practitioners to become aware of these standards (Savage, 1979).

Medicine is becoming more and more bureaucratized, and demands for closer federal and state control over medical costs are increasing (Starr, 1978; Stevens, 1971). It seems likely that there will be more state legislation affecting the ways in which generalists and specialists work together.

Consumer Participation and the Rise of Holistic Health

Demands for consumer participation in planning health care services have been heard frequently of late. Interestingly, many of these come from within the medical profession itself; many physicians seem unwilling to continue to view patients as collections of complaints and symptoms. Cassell (1976) commented on the need:

> To bring discipline to those decisions that involve persons as well as disease....The search for such rigor is at the edge of a truly new frontier in medicine, where the moral and the technical, where person and body, come together. (p. 121)

A training program undertaken by the Be'ersheva Medical School of Ben Gurion University in Israel to train physicians in a holistic approach to family practice is another indicator of this trend--in the program, would-be physicians must spend considerable time during the first years of training working directly with patients on non-medical aspects of health care. The intent is to have them, as physicians, take a stronger interest in their patients as persons (Beersheva, 1979). And the positive reviews given a book by Norman Cousins (1979), in which he describes his own unorthodox treatment for a disease that baffled his doctors, further attest to public interest in this area.

It would be premature, however, to claim that organized medicine will soon break up into a cottage industry with patients serving as their own doctors and with most specialists reverting to general practice. Indeed, some programs to involve patients in their own care have been notable failures. Gallagher (1977) describes the failure many physicians encounter in trying to convince kidney patients to undertake their own dialysis at home:

> The effort, both emotional and physical, demanded of the patient by home dialysis is greater than the much simpler "custodial" requirement of [medical] center dialysis. It therefore comes as no great surprise that many patients and their families given a choice prefer center dialysis which requires only that the patient make himself available" (pp. 81-82)

A Study of Referral Practices among Physicians

Background and methodology. The rationale for studying referrals as indicators of conflict between generalists and specialists was discussed in Section III; referrals were examined there in the context of education. A further set of data on referrals comes from a series of interviews similar to those analyzed in Section III, but conducted among generalist and specialist physicians in a large HMO in the state of Washington. Because the interview schedule used with the physicians was essentially equivalent to that used with teachers, it may be possible to draw some useful conclusions about the ways teachers and physicians refer clients. Additionally, it may be possible to see what ways physicians have developed for handling referrals that teachers are not currently using.

Why chose an HMO as opposed to privately practicing physicians or a group practice as the object for such a study? The answer is simply that the way doctors are organized in an HMO is more similar to the way teachers are organized in schools than is any variant on physician private practice. Doctors in HMOs are salaried, work set hours, have defined client loads, and so on. Thus, possible economic motives for referral in private practice are controlled in an HMO.

Since only one HMO was available for study, different administrative patterns could not be sampled (as they were with three different school districts). Two other independent variables of interest, however, could be controlled: degree of specialization among specialist physicians interviewed, and distance between generalist and specialist. "Degree of specialization" here means simply the extent to which a specialist handles general medical problems outside that person's specialty area. Some doctors deal with many such problems (gynecologists, for example, seem to act as general practitioners for about one half of their female patients; Burkons & Willson, 1975), while others (e.g., neurosurgeons) handle relatively few. "Distance" here means the distance a patient would have to travel on being referred from a family practice (generalist) doctor in one of the HMO's several clinics to the HMO's Central Specialty Center and hospital where most specialists have their offices.

Following project approval and discussions with the HMO's medical and research staff, a sample of physicians was selected. Three levels of specialization were included: low (gynecologists), medium (urologists), and high (neurologists, neurosurgeons). Five from each of these groups (except for the last, in which the HMO has only two on the staff) were chosen. Generalist physicians were picked from three clinics: "Central" (across the street from the Specialty Center), "Valley" (in a suburb about 20 miles south of the specialty center), and "Southern" (in a large town about 60 miles south of the center). (All names of clinics have been changed.) Nine generalists from each of these clinics were included in the sample. Letters soliciting physician participation were sent from the office of the Director of Medical Staff; interviews were eventually conducted with all those who expressed their willingness to participate. The final group of respondents included the following distribution of physicians:

Specialists		
Low specialization (gynecologists)	4	
Medium specialization (urologists)	3	
High specialization (neurologists)	1	
Sub-total	8	
Generalists		
Central clinic	6	
Valley clinic	3	
Southern clinic	5	
Sub-total	14	
Total		22

Since the interview schedule paralleled that used with teachers, it will be appropriate to discuss physicians' responses to the relevant questions in the same order as was followed for teachers in Section III. (Note: a copy of the physician interview schedule is included here as Appendix B.)

Agreement on grounds for referral. Both generalist and specialist physicians indicated no major disagreements over grounds for referral. Among generalists, one particular specialty department (not included in this study) was frequently mentioned as a source of specialist complaints about appropriateness of referrals, but this was coupled with a recognition that the department in question was "overstressed" with too many patients for the number of doctors available.

Two other problems in referring were often mentioned by both generalists and specialists. First, there appeared to be regular disagreements over what were variously called "reassurance" or "emotional" referrals--those made by a generalist on request of a patient simply to get a second opinion and thus reassure the patient. Since the HMO system does not reward doctors for seeing a larger number of patients, there is no incentive (other than professional sense of duty) for a specialist to exert him or herself; there will always be more patients to see the next day. While some generalists interpret specialists to be especially uninterested in seeing "reassurance" referrals, specialists do not see themselves this way. One remarked that "reassurance is a valid function for a specialist."

A second problem, noted somewhat less often than the first, involves what one generalist called "simple complaints" and one specialist termed "aches and pains." These are cases in which a generalist refers a patient problem to a specialist that the specialist feels is either too non-specific or too insignificant for him or her to treat. Some specialists attributed these referrals to unsureness on the part of new generalists about conditions for which referral was an appropriate step.

In all, few real problems surfaced among the responses generalists and specialists gave to this question. Most indicated they agreed "almost all" the time; a few mentioned specific figures, but in only one case was a figure as high as 20% (to include all disagreements) mentioned. Most physicians said 5% , 1%, or fewer of their referrals would involve any disagreement.

Dealing with disagreement. Generalists and specialists reported four ways of coping with any disagreements that arise over referrals: written notes, phone conversations, general bulletins, and avoidance. Notes are supposed to be made routinely by a specialist in a patient's file following a referral (although some generalists indicated this doesn't happen as often as it should); if a specialist felt that a referral was particularly inappropriate, the note might indicate "next time, try procedure 'x' before referring," or, in cases of more serious disagreement, "you should have taken care of this yourself."

Physicians favored phone contacts, either before or after a referral, to clarify both details of a case and reasons for referral. Physicians at Central clinic seemed more likely to make phone contacts than their peers at more distant clinics. This is probably a reflection of closer personal acquaintances and thus willingness to make a preliminary phone call to find out if a referral for a particular condition is really necessary. Specialists occasionally send written bulletins to all generalists in the HMO as a way of disseminating information about new procedures or treatments that could affect referrals. (Interestingly, no generalist queried was able to recall receiving such a bulletin!)

Finally, some generalists indicated that they would simply avoid sending patients to a particular specialist if they found that person difficult to deal with.

The methods physicians use to deal with problems in referrals are primarily informal--notes, personal contacts, and "avoidance." Only a few mentioned the possibility of formally lodging a complaint, and none had either done so or knew anyone who had.

Following up on referrals. Most of the communication between generalists and specialists about patient referrals is in written form: specialists make notes on a patient's chart or write separate memos and include these with files. Phone contacts or personal meetings are rarely used--reportedly only in emergencies or when a referring physician is interested in a case and has requested a personal consultation. Several generalists elaborated on this latter reason for following up: one termed it "continuing education" and another said it was a way to extend his knowledge into new areas.

The system of recording and transmitting information about referrals appears to be a problem. One specialist noted that he used to write fairly complete memos on each case referred to him, but that he simply doesn't have time any more to do so. Several generalists noted that, "Charts don't come back as quickly as they should," or "I only get a note back 50% of the time." Others reported similar problems with breakdowns in the administrative system of physically moving charts back and forth.

Only a few physicians reported any face-to-face contact between generalists and specialists regarding cases, and all of those who did were at the specialty center or Central clinic. Several others also working there also noted that access to peers in cafeterias, at coffee hours, or in other group meetings seemed to enhance interaction and made it easier to call each other when the need arose. Such contacts, it was felt, often substituted for (or "short circuited") a formal referral.

How do patients react to being referred? Some interesting differences between generalists and specialists appeared in answer to this question. Generalists saw the major problem for patients in terms of a "clash of personalities" or a "difference in rapport." In most cases, generalists did not see their relationships with patients as "better" than those specialists establish, but simply as different. When they talked about causes of those differences, generalists most frequently cited a "breakdown in communication" between patient and specialist. Generalists perceive specialists using more jargon with patients, treating them in a more instrumental and less personal fashion, and spending less time with them than the generalist would--"They say,'Come see me in six months,' whereas I'll say,'Come see me next week'," noted one generalist.

Specialists, on the other hand, saw no real problems with patient transitions. Several noted that patients expect competent treatment leading to a cure, "and that's what I'm here for." Two female gynecologists indicated that many women seek them out as personal physicians, feeling that a male generalist (or specialist) is unable to understand their problems. Occasional patient confusion with procedures or patient "pseudo-sophistication" about matters medical (leading to inappropriate referrals) also figured among specialist responses.

All in all, however, both generalists and specialists seemed to feel that patient transitions during referrals went relatively smoothly. Most often, physicians identified the problems noted above as "infrequent" or "occasional," not as everyday occurances.

The future of medical specialism. Physicians saw a variety of factors at work shaping career choices and the future distribution of doctors across specialty fields. While some were hesitant to recommend a direction for a hypothetical friend, many suggested their own area. Generalists saw declining demand for specialists (especially surgeons) and increasing emphasis on general practice. Some attributed this not only to government-imposed quotas and allocations but also to the rise of the holistic and naturalistic health movement, and to predicted moves toward a national health plan. Some generalists, however, noted major differences in lifestyle ("Specialists don't have to worry about calls in the middle of the night") and specialists' better financial position. Generalists also frequently mentioned personality characteristics they saw as requisite for general practice: "warmth," "a broad interest in people," and an "ability to avoid the paranoia that comes with not knowing everything."

Specialists seemed less sanguine about the future for specialists. Most saw some hope for the future, but predicted reduced financial remuneration, more government controls, and a more "focused" use of specialists. One said, "We have oversold the public on the value of specialists," while another foresaw a decrease in the specialist's "freedom to roam" within the profession.

Specialists and generalists in this large HMO do not seem to disagree in major ways about referral procedures. Lack of adequate communication between the two groups is perhaps the biggest problem. In particular, slowness or insufficiency of feedback to generalists following referrals generates some ill feeling. Specialists are perturbed when generalists send them what they consider to be "triffling" problems, but this is a relatively infrequent source of complaints. There is certainly no evidence of any sense of competition between the two groups, and, given the salary arrangements in the HMO, it would be surprising if there were.

The occupational arrangements in this HMO, then, seem to provide a good example of a move away from professional control (Johnson's terminology) to a form of heteronomous control, in which an outside agency (the HMO administration) intervenes between clients and doctors to determine conditions under which services may and may not be provided. This has left some physicians puzzled (especially those who had prior medical experience outside the HMO in private practice), while others seem quite willing (even eager) to accept more equal, if more bureaucratized, relations with patients.

Teachers' and Physicians' Responses Compared

Agreement on grounds for referral. Generalist teachers, the reader may recall, tended to see referral as a "cut and dried" process, with too little flexibility in guidelines controlling what may be referred. Specialist educators noted problems with "dumping" of problem children and the need to balance children's needs against legal requirements. Generalist physicians noted problems in referring to a particular group of overworked specialists in the HMO. There was also some disagreement over "reassurance" referrals (in which no real medical reason for referral was evident) and overreferrals for "aches and pains" (in which the chance of pinpointing a specific problem or effecting a full cure was minimal).

While physicians were less concerned with legal ramifications of referrals, they share with teachers disagreements over what to do with the "problem client"--the one whose problems are hard to identify and harder to treat. A higher proportion of teachers, and specialists in particular, saw real difficulties in handling referrals as compared to physicians.

Dealing with disagreement. Generalist teachers would make repeated referrals or continue working with a child themselves in the event of disagreement over a referral, while specialists would work outside of regular channels to arrange needed services while protecting their own time and resources. Physicians relied much more on written notes and phone messages, and also tried to avoid problem colleagues.

Physicians' approaches to disagreement were more limited than teachers'. Teachers commented that they would "work with whoever could help," while physicians did not express such feelings of desperation. This may be due to the nature of the teacher's work: intensive, daily contact with a particular group of children. The physician sees a client at intervals for a few minutes at a time; the teacher, continuously for hours at a stretch.

Following up on referrals. Teachers, both generalists and specialists, felt that following up with one another after a referral is extremely important. Educational specialists in particular wanted to do more follow-up work than they felt they could; all teachers stressed that procedures for following up were relatively informal. Physicians usually followed up by exchanging notes in a patient's charts, only occasionally resorting to personal or phone contacts out of interest or concern.

Teachers put much more stress on the need for feedback and are much more frequently involved directly with each other in discussing referrals. Again, this may be due to the much smaller number of individual students each teacher is responsible for. Physicians do, however, have a well-established (if occasionally fallible) administrative system for recording and transmitting information.

Client response to being referred. Teachers saw a variety of problems students face in being referred--rejection by peers, "gear shifting" difficulties, potential recidivism if transitions are poorly timed, etc. Physicians also saw several difficulties, including breakdowns in communications and personal incompatibilities, but did not perceive these problems to be as significant as teachers saw theirs to be.

The differences between physicians and teachers in response to this question may be due in part to the different nature of the clients they serve and the situations in which they work--physicians see individual adults sporadically, while teachers must worry more about continuing relationships not only between themselves and students, but among all students in the class.

The future of specialism. Teachers and physicians were both aware of the economic and employment prospects in their fields (specialism on the rise in education; specialism in a period of slight decline and circumscription in medicine). Both groups also made some use of those perceptions in formulating a recommendation to a hypothetical friend about to enter the field. Most, however, would still let personal interests play the major role and felt that there would be a place for anyone who really wanted to find a position.

Interestingly, more teachers than physicians stressed the desirability of gaining experience as a generalist first. Physicians, then, may have accepted the notion of specialist positions as regular parts of the health care system, while teachers still see those positions as "temporary" (even if they are more available and more highly remunerative). Such a change in the perception of specialism, from peripheral function to integral part of the field, may be a significant development to watch for as educational specialization continues.

VI. Conclusion: Specialization and Bureaucracy in Personal Service Professions

Summary of Major Findings

Specialism. The rationale of efficiency professional groups have used in support of increased specialization has been questioned frequently in recent years. Power and control over clients that result from specialization in professions are important factors worth investigating. There has also been some consumer dissatisfaction with the fragmentation in services specialization causes. Another important influence on the professions today is growing state bureaucratic control over professional activities (technicality) which makes it difficult for professions and specialties to maintain an autonomy based on arcane knowledge (indetermination). While most studies of the professions have taken medicine as the model profession, the present work examined both teaching and medicine in the context of the issues discussed above.

Supply of and demand for educational specialists. There continues to be a high demand for specialists in education and for those who work with the handicapped in particular. The changes in school staffing patterns wrought by P.L. 94-142 and related state legislation are likely to maintain that demand for several years. The supply of such specialists is generally adequate; most of the shortages of educational personnel that do exist, however, exist in specialized fields. State certification patterns indicate that specialists have moved rapidly to assure separate status for themselves in many states, moves which seem calculated to improve specialists' prestige and influence.

Generalist-specialist relationships. The literature reflects substantial concern on the part of both generalists and specialists for the ways in which they work together. There have been numerous studies of role definition and calls for role expansion on the part of specialists. Generalist organizations have responded cautiously but firmly to retain their central position. A study of referral patterns revealed: concerns among generalists and specialists about "dumping" of problem students through inappropriate referrals; some student problems in making transitions; a preference for informal communication regarding referrals; a dislike of regulations; and a continuing emphasis on generalist preparation as a base for any further specialization on the part of individuals.

Effects on quality. Commentaries on the effects of medical specialism have often indicated concern for dehumanization of the patient and for excessive fragmentation of service. Some reports on problems have appeared in the literature on education--"dumping," over-referral, and lack of parent involvement. In dealing with these problems, districts have stressed administrative and training efforts to increase communication among specialists and generalists. Similarly, there have been various attempts to encourage parent involvement in specialist programs, and while these have been successful, there have also been some difficulties in generating parent interest.

Medical responses. Efforts by the medical profession to improve generalist-specialist-patient interaction have concentrated on increasing the number of generalists and on providing training to all types of physicians. A study of medical referrals showed: a more formal process of communication about referrals than teachers used; similar problems with "dumping"; concerns about incompatibilities between patient and specialist or generalist. Physicians also accepted the possibility of entering a specialty directly more readily than did teachers.

Medicine and Education: Continuing Similarities and Differences

This study has examined medicine and education as occupations that both must deal with some internal differentiation in order to be able to carry out their primary work of dealing with clients. While there are similarities, there are also important differences. It is important to be aware of these in formulating conclusions and recommendations based on this study.

Similarities. Medicine and education are both occupations bearing a publicly generated mandate to confront certain important social problems (health on the one hand, socialization and ignorance on the other). Both work with clients who come to them with problems. And in both, there has been a history of specialization of tasks, client referral, and some resulting client dissatisfaction.

Differences. But medicine and education are clearly not parallel in all senses. Medicine, as it has been practiced in this country, has been based on a much larger corpus of concrete data and technical expertise than has teaching. But that has perhaps been because medicine's role has been to provide particular treatments for specific problems, rather than to address categories of illness prophylactically or deal with improvement of general health states. Indeed, the traditional function of education is probably more similar to the last of these possible roles. (For other good discussions of the differences between medicine and education, see Schrag, 1971, and Covert, 1975.)

Two other differences are critical in the context of this study. One is that discussed earlier (Section I, pp. 10-12) in connection with professional specialization and bureaucratization. Recall Johnson's (1977) treatment of the "indetermination-technicality ratio": as a profession becomes more highly rationalized and technically explicable, it also becomes more susceptible to outside bureaucratic control by administrators, and thus loses the possibility of claiming a basis in indetermination (arcane knowledge) as a rationale for professional autonomy. The key difference between medicine and education that this point illustrates is this: medicine started from a position of high autonomy (indetermination), became specialized under those conditions, and now finds itself moving into a period of greater bureaucratic control (technicality) with consequent reductions in autonomy for both generalists and specialists. Education, on the other hand, began from a position of wide public control and was early subject to state and local bureaucratic authority; only recently have there been strong tendencies in the direction of specialization; these, coupled with attempts by generalists to increase their own autonomy, may be seen as efforts to expand the indeterminacy of teaching. The question thus remains open as to whether educators will be able to reverse the process through which medicine has been moving over the past seven decades and become more autonomous in a time when popular sentiment seems to be set against such a move.

The other major difference between medicine and education may be seen in the differing emphasis each has put on technical as opposed to humanistic treatment. It is the focus education has had on empathy, patience, "concern for the whole child," and long-term development, as opposed to the medical focus on rational, technical treatments that cope quickly with a single problem. Halmos (1971) noted that the development of the former traits among occupational groups may be seen as evidence of the rise of a "personal service society." He found unfortunate the approach of those sociological critics of the professions who stress divisiveness, power-seeking, and the problems of professionalism at the expense of careful analysis of why the professions work as well as they do. In fact, Halmos commented, it is "the natural enrichment of humanity in the technological revolution of our time [which] constantly widens the margin of intelligent and highly educated manpower which society can now spare for work in the personal social services" (p. 585). Yet, the new professionals this affluence creates must deal with an increasingly pessimistic appraisal of their professions on the part of sociologists. Halmos called for a more careful study of the positive characteristics of the personal service professions (teaching, nursing, social work, etc.) and professionals working in those fields.

Education has always stressed the less easily defined virtues of empathy and concern over those of technical expertise. The studies of educators and physicians discussed in this report showed both generalist and specialist teachers to be more concerned with these qualities than were physicians. To the extent that medicine develops a focus on holistic health and on patient involvement, it may be said that medicine is becoming more a "personal service profession" like education.

Forces Influencing the Future of Specialization in Education

Three powerful influences are at work in education today. The way in which these forces interact will likely determine the future position of specialized educators in the American educational system.

Bureaucratization. The first of these forces is the increasing role of bureaucratic administration in education. This is evident at all levels--federal, state, and local. Parents, teachers, and administrators have all expressed concerns with the volume of paperwork necessitated by specialist services. States and the federal government come to play a larger and larger role in determining the form and content of educational programs, and some see this role growing further with the establishment of a federal Department of Education. Public demands for accountability in education have led to greater legislative control not only over curricula, but also over teacher responsibilities, working conditions, and other matters that might, in another context, be regarded as strictly professional concerns.

Specialization and professional control. In spite of the importance both generalist and specialist teachers attach to the "whole child" and to close working relationships, there are noticable strains between the two groups. Struggles to achieve and maintain a particular type of certification, to gain representation on local or state decision making bodies, or to have a say in how the day-to-day job of teaching is to be carried out--these are not monumental goals, but they do have a cumulative impact on what kind of occupation teaching is becoming. And there have been enough of these struggles to suggest that groups of specialists do see at least part of their destiny as separate from that of generalist teachers. Similarly, the shift organized teachers have made away from bread-and-butter issues and toward issues of professional control may signal a general initiative among educators to make their work more "indeterminate," less accessible to either the ordinary public or the educational bureaucracy.

Public participation. Public involvement in the making of educational decisions is an American value of long standing. The continuing strong role played by local school boards, PTSAs, and citizen advisory boards attests to the strength of this value. And the success of parent groups in coaxing state and federal legislatures to undertake such new and dramatic ventures as mandatory special education demonstrates that such groups can act to change education, as well as support the status quo. Educational authorities have acceded to many public demands for accountability and for a return to "basics." Finally, there has been pressure for more choice and more flexibility in available educational services. The "voucher" movement is perhaps the best example of this (e.g., Coons & Sugarman, 1978).

Which of these trends is most likely to shape the future of educational generalists and specialists? I see bureaucratization and professional control as the strongest of these and public participation as the weakest. Though public involvement has been valued in American education for years, current demographic trends (low birth rates with fewer students thus in schools and a smaller proportion of the citizenry directly affected by what goes on there; more parent mobility, both from district to district and, with bussing, from school to school within districts), combined with public disenchantment with growing bureaucratization of the educational system, will all likely lead to less public participation in education than might be desirable.

In the clash between bureaucratization and professionalism, I see no early resolution. It seems likely that both trends will continue to develop. Although it would seem contradictory to have a profession subject to both bureaucratic and internal collegial control, it may be that a division is forming: administrators will be responsible for assuring that the form of education is satisfactory (i.e., that it meets legal requirements and public expectations), while educators will increasingly be permitted to decide what is done within the classroom, what educational programs are appropriate for which children, what the curriculum will be, and how generalist-specialist relations will be handled.

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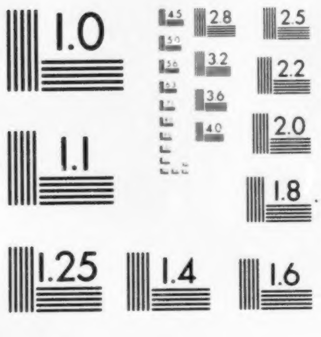

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No. 2)

A Scenario for the Future

The future of the occupation of teaching, then, may be as a specialized, bureaucratically organized personal service profession. Specialization will continue to burgeon. There are already signs of a major push to provide special programs for the gifted during the next few years. And as cognitive psychology provides new insights into how particular information-processing and social skills are developed, new specialists in those areas may also appear. The education profession as a whole will take a large role in determining the content of new specialties, in obtaining separate certification for them, and in deciding their place in the overall educational offerings of the schools. Bureaucratic control will also grow, but it will gradually become limited to overseeing legal requirements in an increasingly centralized system. Finally, education will retain some of the characteristics of a personal service profession, with both generalist and specialist educators continuing to share values of empathy and concern at the expense of technical rationality.

Recommendations for Action and Research

A number [illegible] recommendations for action and further research proceed from the conclusions discussed above. Action recommendations may be taken as prescriptions for training of teachers, both generalist and specialist, at either pre- or in-service levels, or as suggestions for administrative planning. Research recommendations could serve to generate further data collection efforts or evaluation studies.

Increasing interaction. Teachers find interaction with their colleagues to be helpful in avoiding and resolving conflicts over referrals. It may be simplistic to assert that people who talk to one another and work with each other day to day come to know one another better and thus become better able to deal jointly with problems as they arise (even if this means practicing "avoidance" in some cases). Training to enable generalists and specialists to work together on problems could be helpful. Also, parents could be given training to reduce the strangeness any encounter with a professional entails.

Research in this area might uncover particular personal or situational variables associated with improved communication between generalists and specialists. Social exchange theory, and especially that part of it concerned with communication in dyads, offers a useful but unexplored framework for this sort of analysis because it deals with costs and rewards to each party in a social encounter (e.g., Kelley & Thibaut, 1978).

Reducing dumping. A problem identified by both educational and medical specialists in the studies discussed here is that of dumping, or the inappropriate referral of clients with problems which are difficult for the generalist to treat but which do not really fall within the specialist's sphere of competence. There is reasonably good evidence that personality conflicts and cultural differences are responsible for many of these referrals. Training programs could conceivably cut down on the incidence of such referrals. And research might indicate what particular combinations of teacher and student characteristics are most likely to produce dumping.

Making documentation productive. Parents, teachers, and administrators all agree that specialist services, as currently offered in most schools, are too circumscribed by legal and administrative requirements for documentation concerning admission to, treatment in, and release from programs. Given public demands for accountability, it is difficult to see how these requirements could be lifted completely, but some change seems mandatory.

In fact, many educators at present are willing to stretch the rules to provide services to "those who really need it." A reasonable administrative compromise between legal prudence and trust should be sought--one that would tip the scales further in the direction of trust than is now the case. Perhaps physicians' reliance on written notes for following up on referrals could provide a model here: records are generated and kept, but the documentation is developed primarily for internal communication rather than for external control and accountability.

Research in this area could profitably examine what sorts of administrative rules and regulations are more likely to encourage compliance and which avoidance. Second, evaluative tests of a variety of record-keeping and record-circulating systems could determine conditions under which educators could and would make better use of documentation on students. A third key area for research has to do with policy making: which administrative regulations and demands, imposed from above, will actually contribute to the achievement of desired program goals and which will hinder? A fascinating study of methadone maintenance programs by Attewell and Gerstein (1979) showed that federal administrative control may actually be counterproductive in that it "unwittingly forces programs into presiding over their own demise" (p. 326).

Physical proximity. The sets of interviews conducted for this project uncovered interesting effects associated with pjysical proximity of generalists and specialists. Such closeness, with professionals either operating from the same building or stationed across the street from one another, produced a familiarity that short-circuits many potential referrals, thus saving time and work for all concerned. It will be recalled that teachers in the Weston schools that hosted specialist programs in their buildings were warm in identifying those specialists as positive contributors to the overall school program, while their assessment of specialists working out of more distant district offices was much more reserved. Further research might determine what degree of physical proximity is needed to produce such effects, and what percentage of time a specialist would need to be present in a school to be so accepted by generalists. This could be particularly important, given the growing demand for specialists and the tendency of districts to share them among several schools.

The Persistence of the Medical Image

Educators are not likely to give up their fascination with medical images easily. The language of education is now permeated with talk of "conditions," "treatments," "diagnoses," "prescriptions," and the like. To the extent that language molds the way we think, educators want to think of themselves, and have others think of them, as comparable to doctors.

The prevalence of this medical view of education and its recent swift growth are problematic, for they come at a time when the technical bases for specialization among educators are becoming stronger and when there are administrative pressures to structure those services after a medical model. Ironically, this push comes at a time when physicians are examining critically their own 70-year experience with specialism and finding it wanting in many ways. It also comes at a time when consumer demands for a humanized specialism are on the rise.

Changing that mental image of teaching as a profession that should become equivalent to medicine will not be a simple task. Teacher educators must take part of the responsibility, as must school, state, and federal administrators. Teachers themselves and parents must also recognize where the medical analogy becomes misleading. But where the analogy is apt, we must learn from the problems that medicine has had. Only if we can generate public interest in the issues of educational specialization will we be able to modify the future scenario limned above and reintroduce a high level of public participation in making decisions about all aspects of education.

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Footnotes

[1] One of the objectives of this study was to obtain original data from the NSPPT. I had hoped that it might be possible to break down the data on perceived supply and demand by field and specialty, and thus determine if students or faculty of specialized teacher education programs were more sanguine about job prospects in those areas than their generalist peers. Persistent inqueries to a number of offices within NCES and Lewin and Associates (which did the original data analysis) eventually established that these data were destroyed by mistake, probably sometime in the spring of 1978. (Conversations with Frank Morra, Stafford Metz, and Ronald Padone, October, 1978-September, 1979.)

[2] The urban district originally chosen had to be replaced when the district's director of specialist services objected that the study might rekindle tensions generated in a recent teacher strike.

[3] The original design of the study called for interviews with parents and students using basically the same form used with teachers. Administrative, time, and financial limitations, however, made these interviews impossible to carry out.

[4] Since the interview concentrated on referral practices, the specialists involved were those working in programs in which teacher-specialist referrals are common (i.e., special education, psychologists, social workers, remedial reading and math teachers). Specialists who deal primarily with self-referred students (counselors) or with teachers (library-media staff) were thus excluded from this part of the study.

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Appendix A

Interview Schedule--Educators

Specialization among Educators
INTERVIEW SCHEDULE
(Form I--T, S, P, A, B)

ID # ____________
Date ____________
Interviewer ________

[INTRODUCE YOURSELF AND THE PROJECT]

Hello. I'm ______ and I'm working on a research project with Dr. Steve Kerr at the University of Puget Sound. The project is called "Specialization among Educators" and it's sponsored by the National Institute of Education in Washington, D.C. We're interested in finding out more about how educational specialists such as psychologists, counselors, and special education teachers work together with generalist, classroom teachers. Before we start, let me see if I have your name correct.

[MAKE SURE YOU HAVE RESPONDENT'S NAME AND TITLE CORRECTLY ENTERED ON RESPONDENT LIST; CODE AND ENTER ID # ABOVE.]

Do you have any questions before we begin the interview?

[TRY TO ANSWER QUESTIONS WITHOUT PREJUDICING RESPONDENT IN ANY OF THE AREAS COVERED BY QUESTIONNAIRE.]

[FOR ADMINISTRATORS: ASK HERE FOR COPIES OF ANY DISTRICT DOCUMENTS OR MANUALS RELATING TO REFERRAL PROCESS. THESE ARE IMPORTANT FOR THE PROJECT. DISTRICT CAN BE REIMBURSED.]

[FOR SCHOOL BOARD MEMBERS: DO NOT ASK QUESTIONS 2, 3, 5, 6, 17-19; OTHER QUESTIONS WILL NEED TO BE PREFACED WITH "DO YOU THINK...?"]

(1) The first part of the interview deals with your own background in education. Can you tell me how long you've been (teaching/working/serving) in this district?

(2) Did you (teach/work) anywhere else prior to coming here?

(3) Have you ever worked as a (general classroom teacher/specialist)?

[PROBE:] Could you describe your job at that time?

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(4) The next part of the interview deals with how teachers and specialists refer students back and forth to each other. As you may know, current state law requires that students with certain educational problems be handled by a "multidisciplinary team." (Teachers, specialists, principals: Have you had any direct experience in working with such a team?) (Administrators, Board members: Do you know how that team operates in your district?)

(5) Do you have any suggestions that might improve the way that team operates?

(6) (Teachers:) About what percentage of your students do you refer to specialists for the first time in any given year?
(Specialists:) What percentage of the students you work with each year are being referred to you for the first time?
(Principals, administrators:) In what percentage of initial referrals between teachers and specialists are you involved each year?

(7) (Teachers:) To which educational specialists do you find yourself referring students most often?
(Specialists:) What groups or types of teachers seem to make the most referrals?
(Principals, administrators:) In what kinds of referrals are you more often involved than others?

(8) About what percentage of the students in the district would you suppose are using some sort of specialist service?

[NOTE: IF NECESSARY, INDICATE TO RESPONDENT THAT NURSING AND OTHER "UNIVERSAL" SERVICES SHOULD NOT BE INCLUDED IN ESTIMATE; COUNSELING MAY BE INCLUDED.]

(9) (Teachers:) When you have made a referral, how important is it to follow up personally with the specialist?

(Specialist:) After you've seen a student referred to you by a classroom teacher, how important is it to follow up personally with that teacher?

(Principals, administrators:) How do teacher and specialist seem to stay in contact once a referral has been made?

(10) (Teachers:) How easy is it for students to make the transition from working with you to working with the specialist?

(Specialists:) How easy is it for students to make the transition from working with you back to working with the classroom teacher?

(Principals, administrators:) How do students seem to handle the transition from working with general classroom teacher to working with specialist and back again?

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(11) (Teachers, specialists:) Do you feel that the (teachers/specialists) with whom you work agree with you on what the appropriate grounds for referral are? In other words, do you ever disagree?

(Principals, administrators:) Do you feel that general teachers and specialists agree on what the appropriate grounds for referral are? Do they ever disagree?

[PROBE:] For instance, if (you/one of them) found a student who (you/they) felt needed special treatment but did not qualify, what would you do?

(12) How do you handle any cases of disagreement?

[PROBE:] Does your district have any formal ways for handling that sort of disagreement?

[PROBE:] How about informal ways?

(13) If the specialist and generalist who have to work together are separated by physical distance (for example, if they're in different schools), does that distance make any difference in the process of referral?

(14) Does that sort of distance affect the number of referrals?

(15) How do students get involved with the process of referral?

[PROBE:] Do they ever request referrals?

[PROBE:] How about students working with counselors?

(16) Do students or parents ever complain about referrals?

[IF "YES":] How are such complaints handled?

(17) The last part of the interview has to do with your own experience in education and what you see as the future for education. Let me ask you what led to your choice to become a (classroom teacher/specialist/principal/administrator)?

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(18) How satisfied are you with that choice?

(19) Do you have any desire to work in a different position in education?

[IF "YES":] What sort of position?

(20) If you were asked by a young friend just entering a teacher-training program to recommend either classroom teaching or specialized teaching, in which direction would you encourage your friend to go?

[PROBE:] Why?

[PROBE:] How do you think the employment prospects look in that area?

(21) That's the end of the interview. Do you have any other thoughts about the way educational generalists and specialists work with each other or about the future of specialization in education that you'd like to share?

Thanks very much for your help. We'd like to give you this small honorarium, but we also need to have you sign this receipt.

[OFFER THE HONORARIUM. HAVE RESPONDENT SIGN RECEIPT. BE SURE TO DATE AND ADD YOUR INITIALS. IF RESPONDENT IS CONCERNED ABOUT IDENTIFICATION, NOTE THAT NO ID # APPEARS ON RECEIPT, NOR DOES NAME APPEAR ON SCHEDULE. THE NAME-ID # LINK IS NOT MADE PUBLIC AT ANY POINT.]

Again, thank you for participating in this study.

[IF RESPONDENT ASKS FOR DATA OR A COPY OF THE RESULTS, ASK HIM/HER TO WRITE NAME AND ADDRESS ON A SEPARATE SHEET OF PAPER. RESULTS WILL BE READY ABOUT MID-OCTOBER, 1979.]

[BE SURE YOU HAVE ALL PAPERS, LISTS, SCHEDULES ON DEPARTING.]

Appendix B

Interview Schedule--Physicians

INTERVIEW SCHEDULE

(Form II -- GD)

ID # ______________

Date ______________

Interviewer _________

[INTRODUCE YOURSELF AND THE PROJECT]

Hello. I'm __________ and, as you know, I'm working on a research project with Dr. Steve Kerr at the University of Puget Sound. The research focuses on referrals among family practice physicians and specialists. We want to find out more about how both generalists and specialists handle referrals. Before we start, let me see if I have your name spelled correctly.

[MAKE SURE YOU HAVE RESPONDENT'S NAME AND TITLE CORRECTLY ENTERED ON RESPONDENT LIST; CODE AND ENTER ID # ABOVE.]

Do you have any questions before we begin the interview?

[TRY TO ANSWER QUESTIONS WITHOUT PREJUDICING RESPONDENT IN ANY OF THE AREAS COVERED BY THE QUESTIONNAIRE.]

(1) The first part of the interview deals with your own background in medicine. Can you tell me how long you've been practicing at Group Health?

(2) Did you practice anywhere else prior to coming here?

(3) Have you ever practiced as a (generalist/specialist)?

[USE OPPOSITE]

[PROBE] Could you describe your job at that time?

(4) The next part of the interview deals with how family practice doctors and specialists refer patients back and forth to each other.

(Generalists:) Of the patients you see during a given year, about what percentage do you refer to specialists?

(Specialists:) Of the patients you see during a given year, about what percentage is referred to you by family practice physicians, and what percentage is self-referred?

(5) (Generalists:) To which specialists do you find yourself referring patients most often?

(Specialists?) What groups or types of generalists seem to make the most referrals?

(6) About what percentage of all G.H.C. patients would you suppose are using some sort of specialist service?

(7) (Generalists:) When you have made a referral, how important is it to follow up personally with the specialist?

(Specialists:) After you've seen a patient referred to you by a generalist, how important is it to follow up personally with the generalist?

(8) (Generalists:) Do you expect patients to return to see you following a referral?

(Specialists:) Do you expect patients to return to the generalist who referred them following a referral?

(9) (Generalists:) How easy is it for patients to make the transition from working with you to working with the specialist?

(Specialists:) How easy is it for patients to make the transition from working with you back to working with their family practice physician?

(10) Do you feel that the (generalists/specialists) with whom you work agree with you on what the appropriate grounds for referral are? In other words, do you ever disagree?

[PROBE] For instance, have you ever found a patient who you felt needed special treatment but who the specialist felt did not qualify?]

(11) How do you handle any cases of disagreement?

[PROBE] Are there any formal ways for handling that sort of disagreement?

[PROBE] How about informal ways?

(12) If the specialist and generalist who have to work together are separated by physical distance (for example, if the generalist works in a clinic a long way from the Central Specialty Center), does that distance make any difference in the process of referral?

(13) Does that sort of distance affect the number of referrals?

(14) How do patients get involved with the process of referral?

[PROBE] Do they ever request referrals?

(15) Do patients ever complain about too many or too few referrals?

[IF "YES"] How are [illegible] complaints handled?

(16) The last part of the interview has to do with your own experience in medicine and what you see as the future for medicine. Let me ask you what led to your choice to become a (family practice physician/specialist)?

(17) How satisfied are you with that choice?

(18) Do you have any desire to work in a different position in medicine?

[IF "YES"] What sort of position?

(19) If you were asked by a young friend just entering medical school to recommend either general or specialized practice, in which direction would you encourage your friend to go?

[PROBE] Why?

[PROBE] How do you think the employment prospects look in that area?

(20) That's the end of the interview. Do you have any other thoughts about the way generalists and specialists work with each other or about the future of specialization in medicine that you'd like to share?

Thanks very much for your help and for participating in this study.

[IF RESPONDENT ASKS FOR DATA OR A COPY OF THE RESULTS, ASK HIM/HER TO WRITE NAME AND ADDRESS ON A SEPARATE SHEET OF PAPER. RESULTS WILL BE READY ABOUT MID-OCTOBER,1979.]

[BE SURE YOU HAVE ALL PAPERS, LISTS, SCHEDULES ON DEPARTING.]